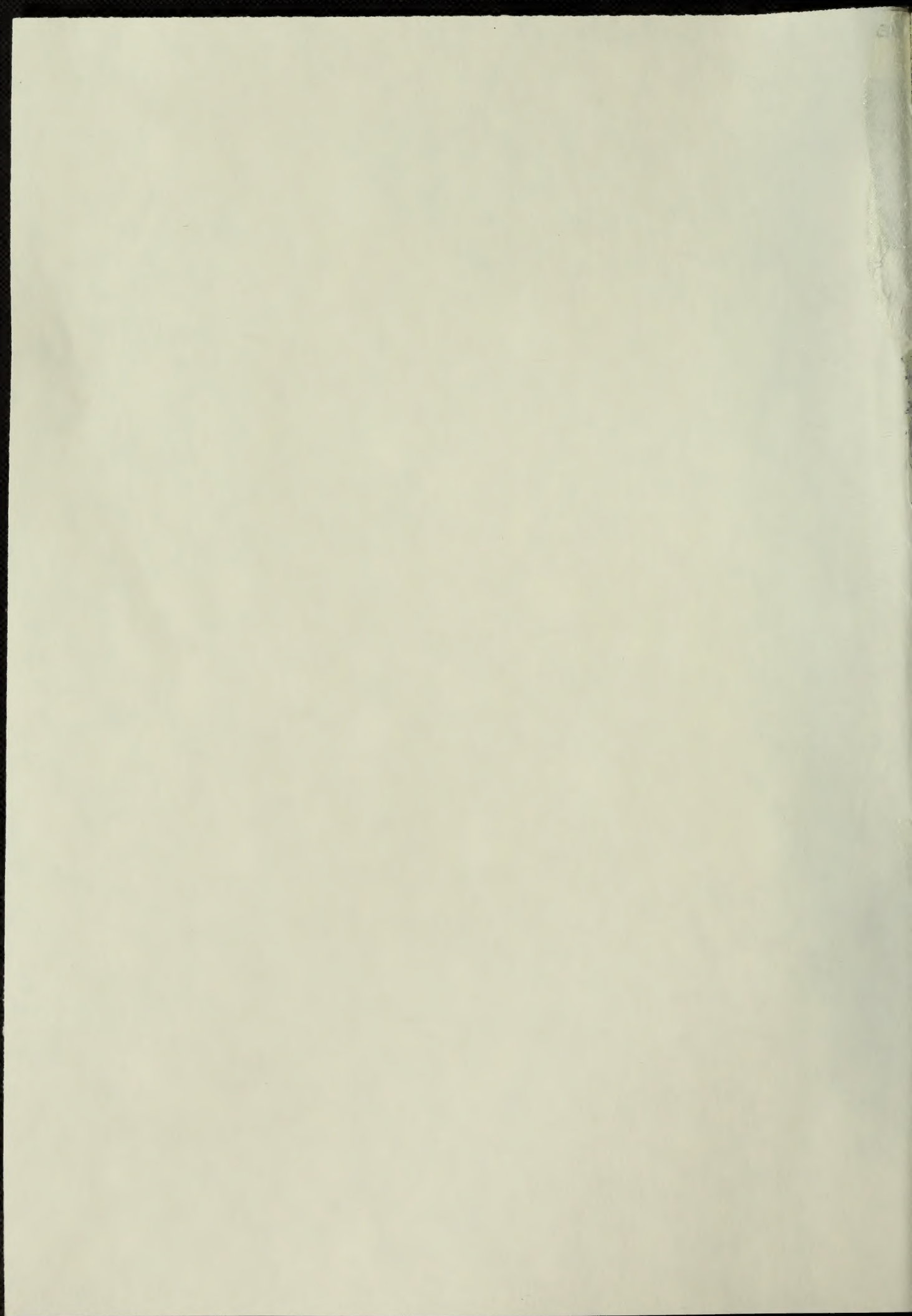


UNIVERSITY OF
ILLINOIS LIBRARY
AT URBANA-CHAMPAIGN
BOOKSTACKS



Proposed Changes For 1989
See Page xix
Changes to Jet Fuel Imports
See Page xx

253-19

HERTZBERG — NEW METHOD, INC. EAST VANDALIA ROAD, JACKSONVILLE, ILL. 62650

WKR. TITLE NO. ACCOUNT NO. LOT AND TICKET NO.
1-0876 8860 07200-253 CQ 49- 19 F

2-06 U.S. * ENERGY * INFORMATION * ADMINISTRATIO
1 * 43-12 PETROLEUM * SUPPLY * MONTHLY *

3-24 JAN.-JUNE*1988*
2-25 Dec. E3.11/5:*

989/1-6*
CLOTH COLOR

STX1
HEIGHT

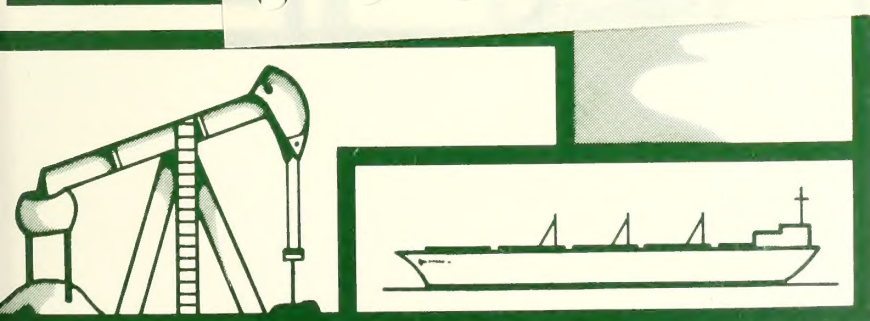
11 1/4

CHARGING INFORMATION SPECIAL WORK AND PREP.

STUBBING	FRONT COVER	HAND ADHESIVE	MAP POCKET PAPER
HAND SEW	NO TRIM	LENGTHWISE	MAP POCKET CLOTH
THRU SEW	PAGES LAMINATED	FOREIGN TITLE	SPECIAL WORK
THRU SEW ON TAPE	EXTRA THICKNESS	LINES OF LETTERING	REMOVE TATTLE TAPE

HEIGHT PICA WRAP

11'8" 10



DISK-B920701 REC.-550 FONT-2/215 PAGE- 287
2WKD.

U-0876.8860 07200-253 CQ 49- 19 P
42-06 U.S. * ENERGY * INFORMATION * ADMINISTRATIO
N * 43-12 PETROLEUM * SUPPLY * MONTHLY *

43-24 JAN.-JUNE*1988*
42-28 Doc. E3.11/5:*

988/1-6*

0071

FOIL- WHITE

STX1

11 1/4

11 1/8 10 1/2

T-

2WKD.

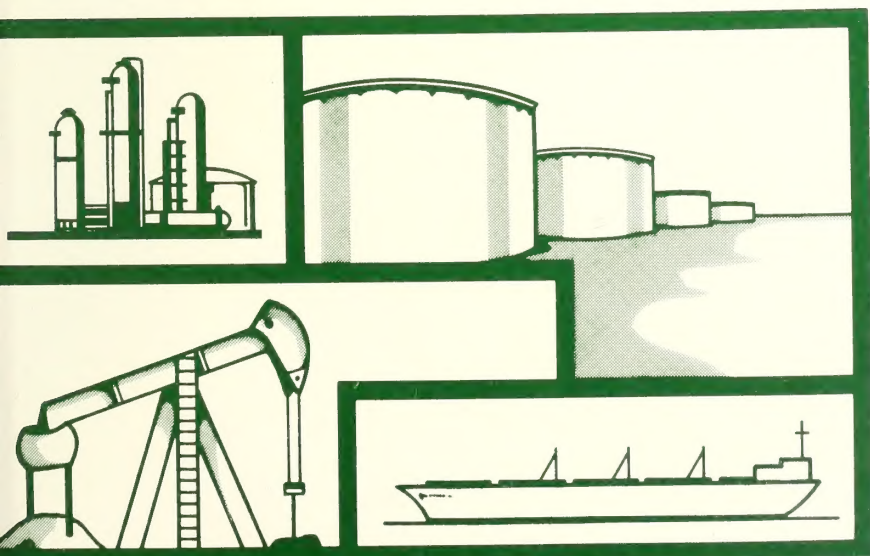
Proposed Changes For 1989
See page xix
Changes to Jet Fuel Imports
See page xx

253-19

Energy Information Administration

Petroleum Supply Monthly

January 1988

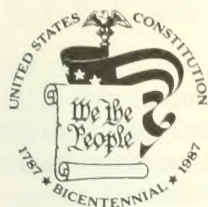


This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, EI-231
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, DC 20585
(202)586-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202)783-3238

Released for printing: March 28, 1988



DOE/EIA-0109(88/01)
Distribution Category UC-98

Petroleum Supply Monthly

January 1988

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

The Library of the

JUN 17 1988

University of Illinois
at Urbana-Champaign

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), *Weekly Coal Production* (WCP), and *Electric Power Monthly* (EPM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202)586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a holiday) after 5:00 p.m. Monthly petroleum supply data for the current month are also provided and are updated by 5:00 p.m. on the 24th of each month. Monthly statistics from the *Electric Power Monthly* are available on or about the first working day of each month. Question or comments on petroleum data should be directed to T.C. Swann at (202)586-1155. Questions or comments on coal data should be directed to Hans Becker at (202)586-6874. Questions on electricity data should be directed to Dean Fennell at (202)586-5311.

Access Instructions:

- 1) DIAL (202)586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```
***                                     ***
***                               WELCOME TO THE                               ***
***   ENERGY INFORMATION ADMINISTRATION   ***
***   ELECTRONIC PUBLICATION SYSTEM       ***
***                                     ***
```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT
PSMR - PETROLEUM SUPPLY MONTHLY
STKS - PSM STATE STOCKS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT
EPMS - U.S. ELECTRIC POWER STATISTICS

PLEASE ENTER THE DESIRED REPORT ID... **PSMR**

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

\$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED MONTHLY STATISTICS FROM PETROLEUM SUPPLY MONTHLY (PSM) SYSTEM. THIS SYSTEM WILL DISPLAY THE MOST RECENT PSM DATA FOR TABLES 4, 11, 18, AND 24. PLEASE TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:

- 7 Data Bits
- 1 Stop Bit
- Even Parity

EIA Petroleum Data Available In Machine-Readable Files

Petroleum supply statistics are available on five magnetic tapes. One tape contains final 1983 through 1986 petroleum supply statistics by month, taken from the *Petroleum Supply Annual*; the second contains preliminary 1987 and 1988 statistics to date by month, from the *Petroleum Supply Monthly*. Three additional tapes contain current and historical statistics on imports of crude oil and petroleum products into the United States and Puerto Rico. The current import tape contains preliminary 1987 and 1988 statistics to date by month. The two historical import tapes contain final statistics by month. One tape contains statistics for the years 1977 through 1985; the second contains 1986 statistics. The current tapes are updated each month. All tapes are fully documented.

Tapes are sold for \$200 each and should be referenced by National Technical Information Service (NTIS) number:

<i>Petroleum Supply Annual</i> -- 1983-1986	PB87-194502
<i>Petroleum Supply Monthly</i> -- Preliminary (1987-1988)	PB87-206694
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985	PB87-147781
Oil Imports into the United States and Puerto Rico, Annual -- 1986	PB87-194494
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1987-1988)	PB87-194510

To order, contact:

National Technical Information Service (NTIS)
Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Stephen Patterson	(202) 586-5994
Supply and Disposition	Stephen Patterson	(202) 586-5994
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Nancy Masterson	(202) 586-8393
Imports	Claudette Graham	(202) 586-9649
Exports	T. C. Swann	(202) 586-1155
Stocks	Beverly Harris	(202) 586-5130
Transportation	Chris Gray	(202) 586-8995

January 1988 Feature Article	Louise Duffy	(202) 586-9648
------------------------------------	--------------	----------------

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Contents

	Page
Highlights	xi
Petroleum Focus	
Petroleum Supply Summary	xvii
Proposed Changes to Petroleum Supply Surveys	xix
Bonded Aircraft Fuel Data	xx
U.S. Petroleum Import/Export Trends Through 1987	xxi
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview	2
S2. Crude Oil Supply and Disposition	6
S3. Crude Oil and Petroleum Product Imports	8
S4. Finished Motor Gasoline Supply and Disposition	11
S5. Distillate Fuel Oil Supply and Disposition	13
S6. Residual Fuel Oil Supply and Disposition	15
S7. Liquefied Petroleum Gases Supply and Disposition	17
S8. Other Petroleum Products Supply and Disposition	18
Sources of Summary Statistics	19
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27
Supply and Disposition of Crude Oil and Petroleum Products by PAD District	
6. PAD District I	28
7. PAD District II	29
8. PAD District III	30
9. PAD District IV	31
10. PAD District V	32
Production of Crude Oil	
11. Production by PAD District and State for the Most Currently Available Month	33
Natural Gas Processing	
12. Plant Production of Petroleum Products by PAD District	34
Refinery Operations by PAD District	
13. Refinery Input of Crude Oil and Petroleum Products	35
14. Refinery Production of Petroleum Products	36
15. Percent Refinery Yield of Petroleum Products	37
Imports and Exports of Crude Oil and Petroleum Products	
16. Imports by PAD District	38
17. Year-to-Date Imports by PAD District	39
18. Imports by Source and PAD District	40
19. Year-to-Date Imports by Source and PAD District	45
20. Exports by PAD District	50
21. Year-to-Date Exports by PAD District	51
22. Exports by Destination	52
23. Year-to-Date Exports by Destination	54
Stocks	
24. Stocks of Crude Oil and Petroleum Products by PAD District	56
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	61

	Page
Transportation of Crude Oil and Petroleum Products Between PAD Districts	
26. Movements by Pipeline, Tanker, and Barge	62
27. Movements by Pipeline	63
28. Movements by Tanker and Barge	63
29. Net Movements by Pipeline, Tanker, and Barge	64
Residual Fuel Oil by Sulfur Content	
30. Production of Residual Fuel Oil by PAD District	65
31. Stocks of Residual Fuel Oil by PAD District	65
32. Movements by Tanker and Barge Between PAD Districts	65
33. Imports by Country of Origin	66
34. Imports by State of Entry	67
Appendices	
A. District Descriptions and Maps	71
B. Explanatory Notes	73
C. Impact of Resubmissions on Major Series, 1987	88
Glossary	
Definitions of Petroleum Products and Other Terms	93
Figures	
S1. Petroleum Overview	4
S2. Petroleum Products Supplied	4
S3. Crude Oil Supply and Disposition	5
S4. Crude Oil Ending Stocks	5
S5. Finished Motor Gasoline Supply and Disposition	10
S6. Motor Gasoline Ending Stocks	10
S7. Distillate Fuel Oil Supply and Disposition	12
S8. Distillate Fuel Oil Ending Stocks	12
S9. Residual Fuel Oil Supply and Disposition	14
S10. Residual Fuel Oil Ending Stocks	14
S11. Liquefied Petroleum Gases Supply and Disposition	16
S12. Liquefied Petroleum Gases Ending Stocks	16

Illustration Credit

Exxon Company, U.S.A., page ix (courtesy of the American Petroleum Institute).

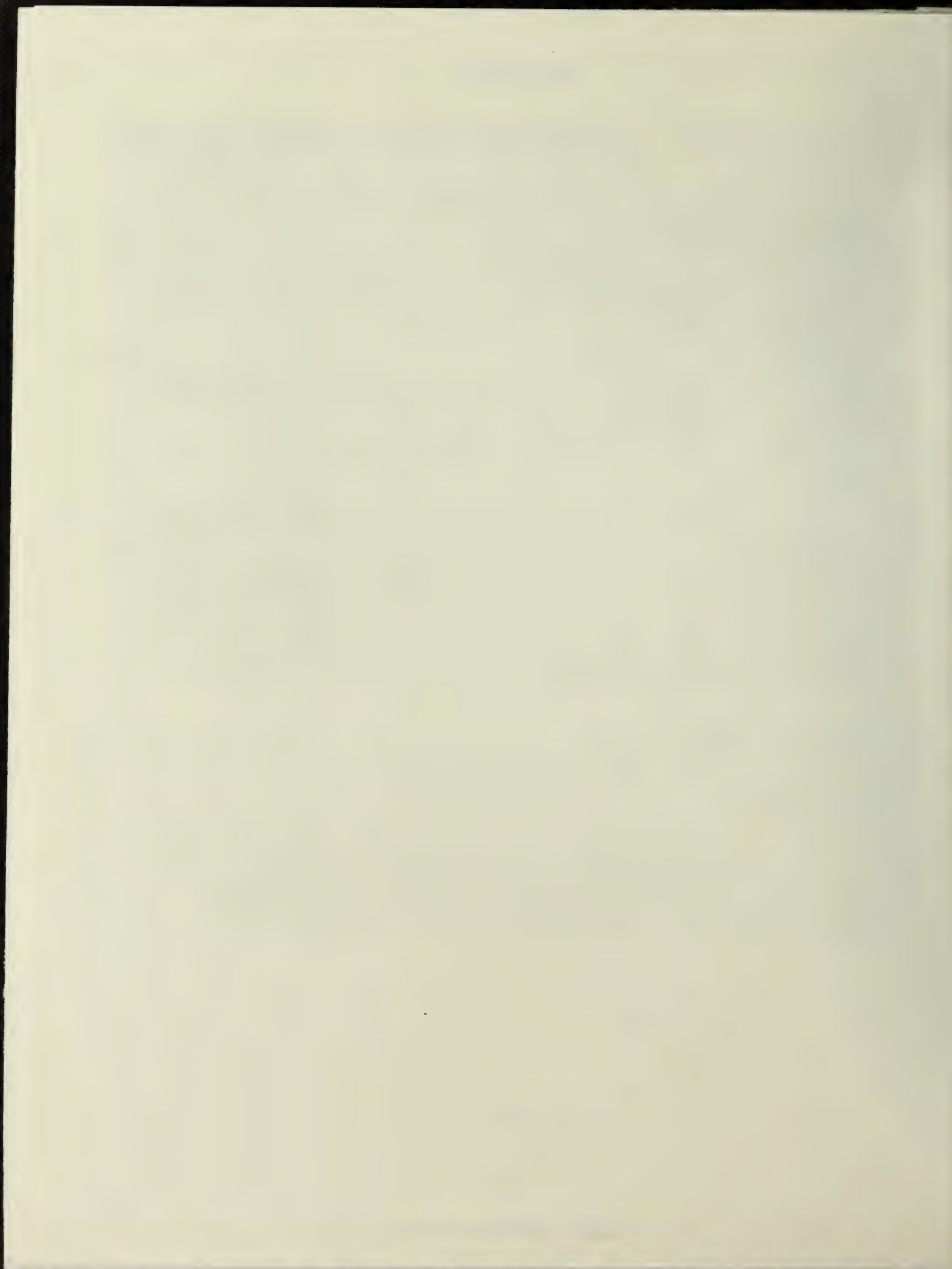
Photo Credits

Colonial Pipeline Company, page xii (courtesy of the American Petroleum Institute).
Alliance Refinery, U.S.A., page xiii (courtesy of the American Petroleum Institute).

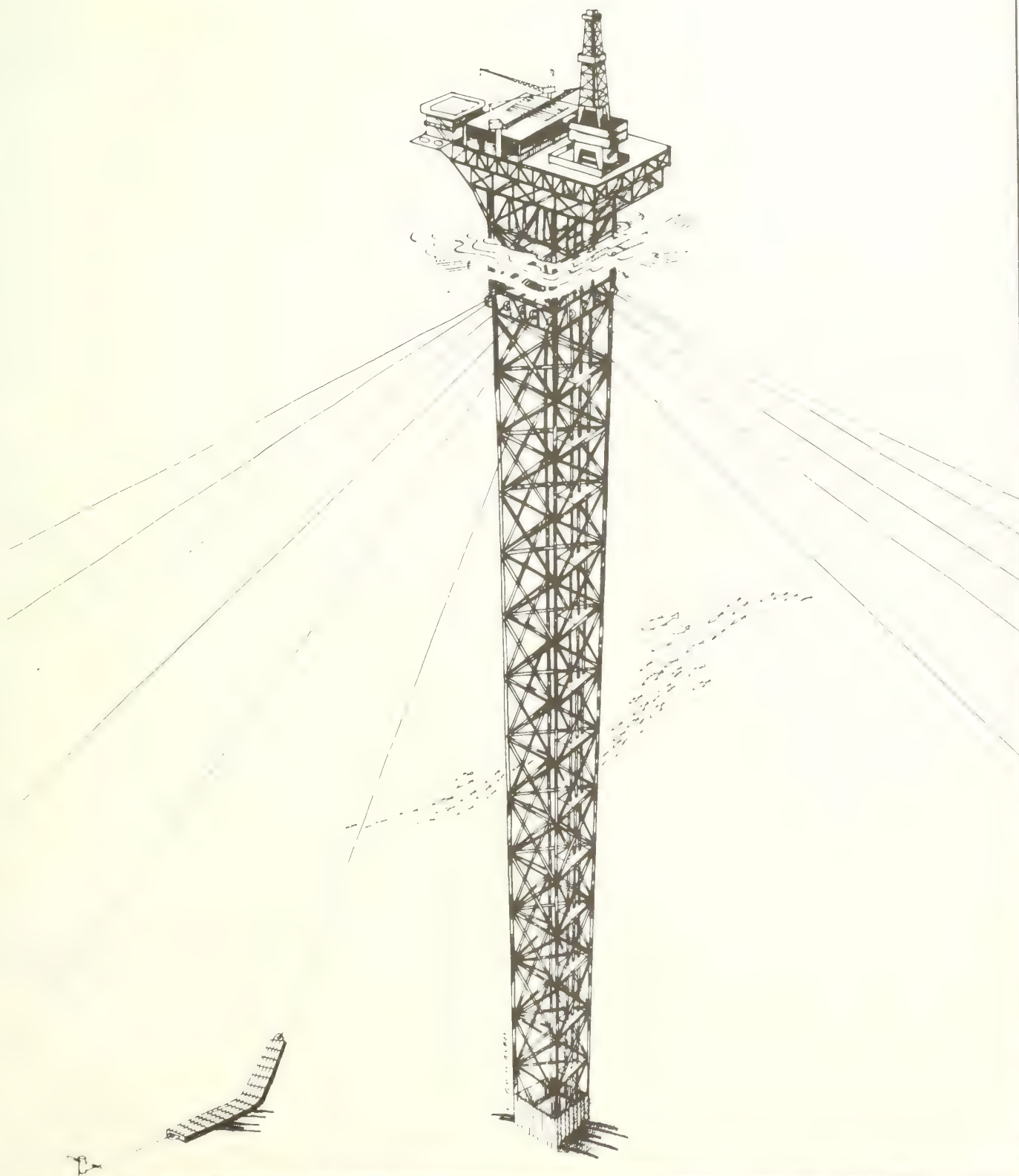
Articles

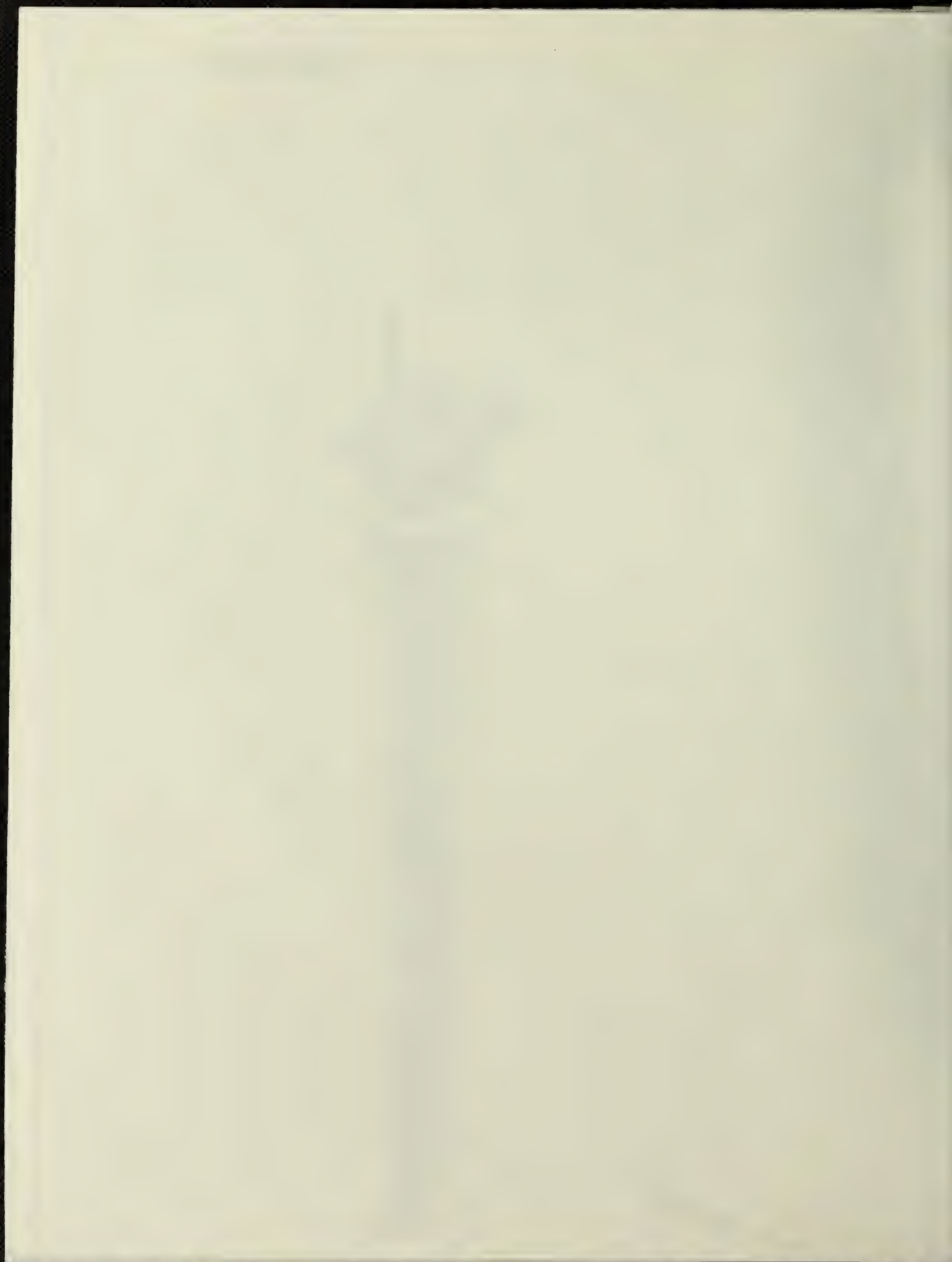
Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1985
Motor Gasoline Outlook for Summer 1985	February 1985
Refinery Capacity Trends and Outlook	March 1985
Mid-Year Petroleum Review	May 1985
Timeliness and Accuracy of Petroleum Supply Data	June 1985
Distillate Fuel Oil Trends	July 1985
World Oil Price and Inventory Cycles	August 1985
Petroleum Storage Technology	August 1985
Comparison of Independent Statistics on Petroleum Supply	September 1985
U.S. Petroleum Developments: 1985	November 1985
Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987



Highlights





Highlights

Total U.S. demand for petroleum products during January 1988 averaged about 17.2 million barrels per day, over 0.8 million barrels per day higher than the comparable figure of a year ago. This is the second consecutive month that demand has exceeded 17.0 million barrels per day. Product supplied data for the major products continued to follow seasonal demand patterns, with increases in distillates, residual fuel oil, and propane demand being offset by decreases in the demand for motor gasoline and asphalt and road oil.

Other January 1988 highlights include:

- Total product inventories fell by over 8.8 million barrels in January to 709.1 million barrels.
- Crude oil stocks (excluding SPR) continued to drop in January, falling from 349.3 million barrels to 345.5 million barrels by month's end.
- Refinery utilization fell from December's rate of 83.4 percent to 82.8 percent.

Product Supplied

Severe winter weather in January throughout much of the nation helped push the demand for distillate and residual fuel oils well above December's levels, and contributed to the large drop in motor gasoline demand (Table H1). Distillate product supplied during January averaged 3.5 million barrels per day, nearly 0.2 million barrels per day over December's level and about 0.3 million barrels per day above the January 1987 figure. Residual fuel oil deliveries increased 0.1 million barrels per day in January to 1.6 million barrels per day. With refinery production of distillate down in January, stocks were drawn down at a rate of over 0.2 million barrels per day. The higher demand for residual fuel oil was met through increased imports.

Propane demand also remained strong in January and increased about 0.2 million barrels per day above December's level. Seasonal demand is responsible for much of the recent increase in propane deliveries, but the demand for propane at

Table H1. Production, Imports, Product Supplied and Stock Change¹: December 1987 and January 1988
(Million Barrels per Day)

Category	December 1987				January 1988				Difference (January minus December)			
	Production	Imports	Product Supplied	Stock Change	Production	Imports	Product Supplied	Stock Change	Production	Imports	Product Supplied	Stock Change
Motor												
Gasoline	7.0	0.3	7.2	(s)	6.7	0.3	6.7	-0.4	-0.3	(s)	-0.6	-0.3
Distillate	3.2	0.4	3.3	-0.2	3.0	0.4	3.5	0.2	-0.2	(s)	0.2	0.4
Residual	1.0	0.7	1.4	0.1	1.0	0.7	1.6	(s)	(s)	0.1	0.1	-0.1
Propane	0.9	0.1	1.2	0.3	0.9	0.1	1.3	0.4	(s)	(s)	0.2	0.1
Asphalt/ Road Oil	0.3	(s)	0.2	-0.1	0.2	(s)	0.1	-0.1	(s)	(s)	-0.1	-0.1
Total Products	17.0	2.1	17.5	0.6	16.4	2.3	17.2	0.3	-0.6	0.1	-0.3	-0.3

¹ A positive number indicates a stock decrease and a negative number indicates a stock increase.

^(s) Less than 50,000 barrels per day.

Note: Components may not add due to independent rounding.

petrochemical plants has also been given a boost recently because of higher demand for U.S. petrochemical products overseas resulting from the weaker dollar. Propane demand in January averaged 1.3 million barrels per day.

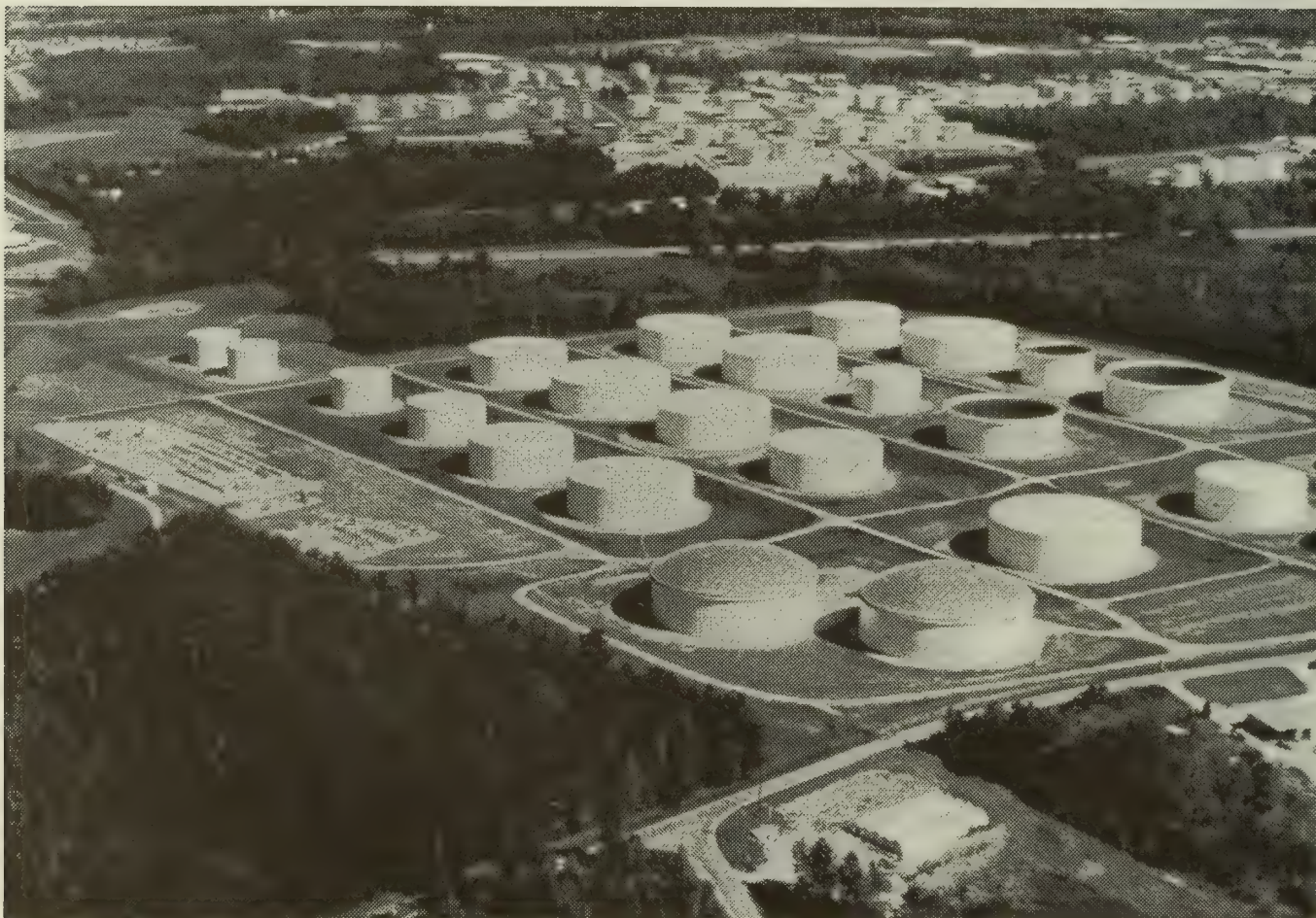
Particularly bad January weather and a normal shift in driving patterns following the holiday season contributed to the large decrease in motor gasoline demand this month. From 7.2 million barrels per day in December, motor gasoline product supplied slipped to 6.7 million barrels per day in January, a substantial 0.6 million barrels per day decrease. Accompanying the drop in motor gasoline demand was a decline in motor gasoline production, which is also consistent with seasonal trends. Motor gasoline production in January fell almost 0.3 million barrels per day from December's level to 6.7 million barrels per day.

The slowdown in road construction during the winter season pushed asphalt and road oil deliveries down again this month.

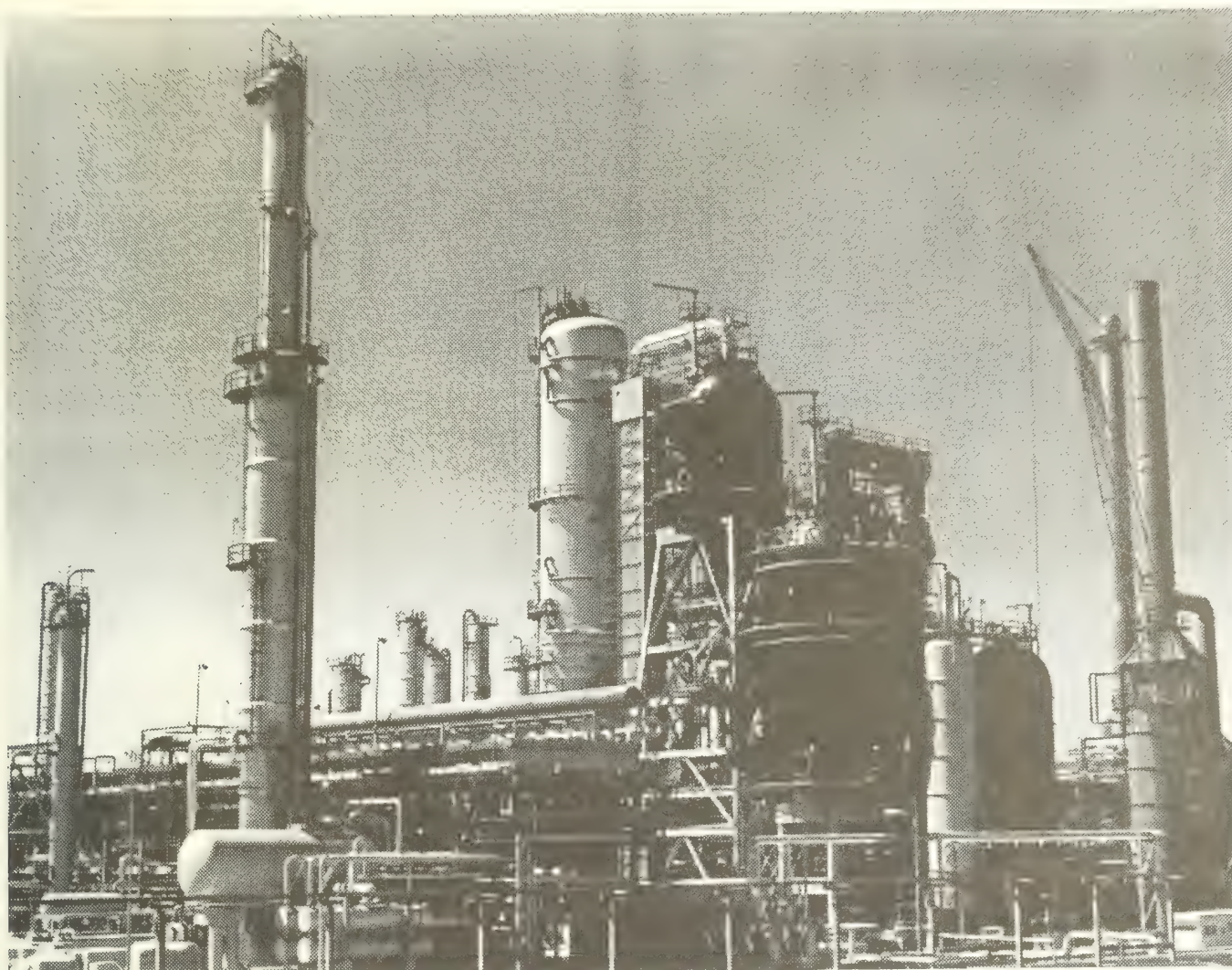
Asphalt and road oil product supplied in January fell to 0.1 million barrels per day, a drop of about 50 percent from the December level. With production well above demand, stocks of asphalt and road oil climbed 3.9 million barrels by month's end.

Product Stocks Fall

Total stocks of petroleum products fell by almost 9 million barrels in January to 709.1 million barrels. Propane and distillate stocks showed the biggest declines as stock withdrawals were required to meet increased seasonal demand for both products. Propane stocks fell 11.4 million barrels from December's level to 36.4 million barrels. Stocks of distillates were tapped for 7.3 million barrels to end the month at 127.2 million barrels. Eighty-four percent of the total drawdown in



Total product stocks held in primary storage facilities, like the Greensboro, North Carolina tank farm pictured here, dropped 8.8 million barrels in January to 709.1 million barrels.



Inputs of fresh feed to downstream cracking and coking units fell 0.2 million barrels per day in January to 6.6 million barrels per day. Shown is a catalytic cracking unit in Louisiana.

distillates during January occurred in PAD District I, and most of the drop in this region appeared in the Mid-Atlantic States.

Much lower demand for motor gasoline in January led to a sizable increase of 11.2 million barrels in motor gasoline stocks, 10.1 million barrels of which were unleaded gasoline. At the end of January, finished motor gasoline inventories stood at 200.1 million barrels. Inventory build-up of this magnitude is normal for motor gasoline at this time of year.

Crude Oil Stocks Fall

Crude oil stocks (excluding SPR) dropped again in January, though at only a quarter of the rate for December. This is the second consecutive monthly decline following the four month build-up (from August through November) that drove crude stocks to their highest level since early 1983. Crude oil

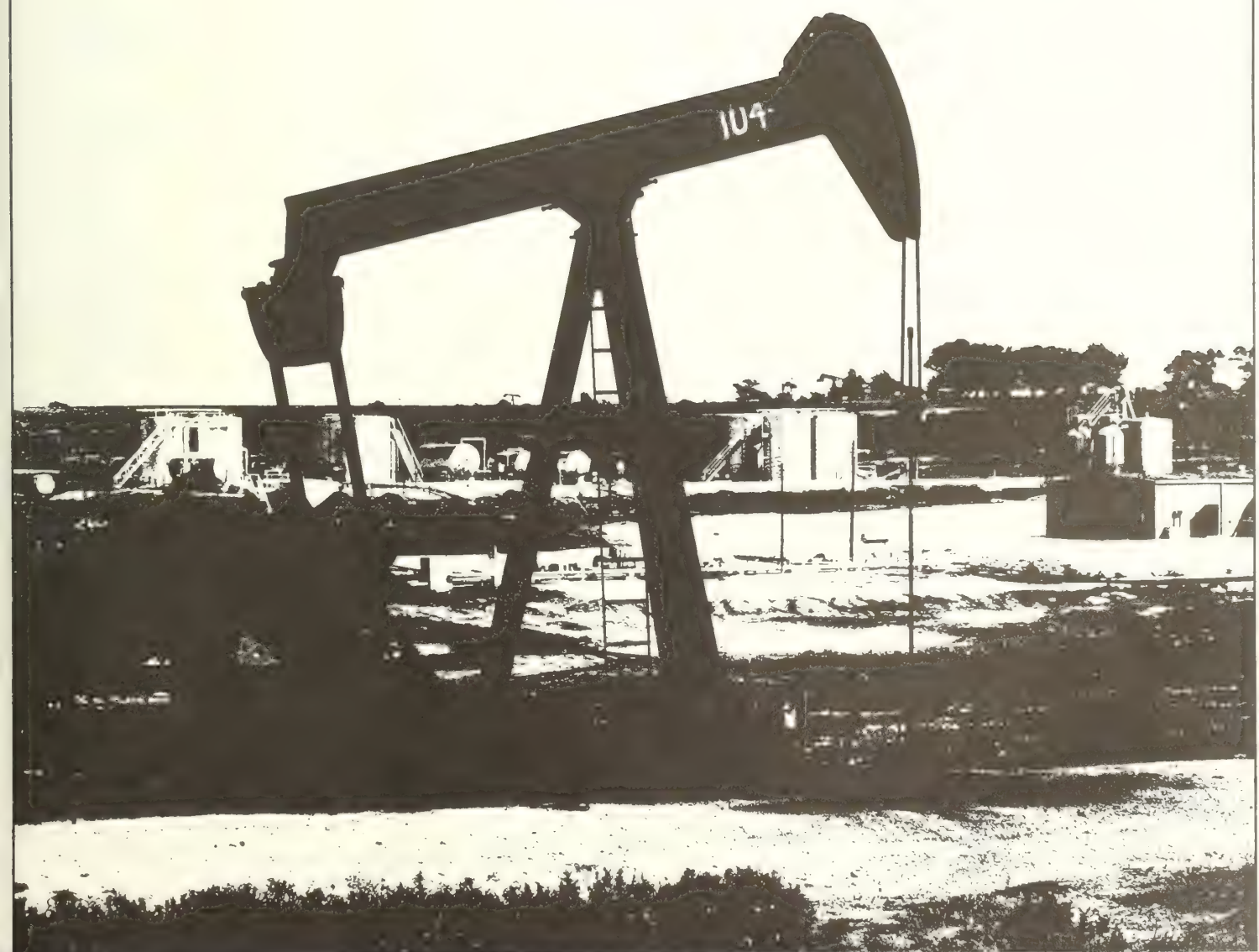
inventories in January fell by 3.8 million barrels to 345.5 million barrels.

Refinery Activity Slows

Refinery utilization in January of 82.8 percent was slightly below the utilization rate of 83.4 percent for November and December of 1987. The 0.2 million barrels per day decrease in gross refinery inputs to crude distillation units was largely responsible for the decrease in the utilization rate. Gross inputs averaged 13.2 million barrels per day in January, while operable capacity averaged 15.9 million barrels per day. A slowdown in refinery activity during January also occurred at downstream processing units. From 6.8 million barrels per day in December, inputs of fresh feed to catalytic cracking, catalytic hydrocracking, and coking units fell to 6.6 million barrels per day in January.



Petroleum Focus





Petroleum Supply Summary

(Million Barrels per Day)

	February			Cumulative January Through February		
	1988	1987	% Change	1988	1987	% Change
Products Supplied						
Motor Gasoline	6.8	6.7	0.7	6.7	6.6	2.0
Distillate Fuel Oil	3.4	3.3	1.6	3.5	3.3	4.9
Residual Fuel Oil	1.5	1.5	3.4	1.6	1.5	5.8
Other Products	5.5	5.2	6.5	5.5	5.2	5.7
Total	17.2	16.7	2.9	17.2	16.5	4.1
Crude Inputs to Refineries	12.8	12.3	3.8	12.9	12.4	3.5
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	10.1	10.0	.5	10.0	10.1	-1.2
Imports						
Crude Oil ²	4.6	3.9	19.1	4.6	4.1	11.9
SPR	(s)	(s)	7.3	.1	.1	-17.3
Products	1.9	2.0	-1.9	2.1	1.9	12.3
Total	6.6	5.8	12.0	6.7	6.0	11.7
Export						
Crude Oil	.2	.3	-38.1	.2	.2	3.6
Products	.7	.7	-2.6	.7	.7	-5.2
Total	.9	1.0	-13.3	.9	.9	-3.4
Stock Withdrawal						
Crude Oil ²	-.3	.1	-	-.1	(s)	-
Products	.8	.8	-	.6	.6	-
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	544	517	5.3	-	-	-
Other	346	332	4.3	-	-	-
Total	890	849	4.9	-	-	-
Products						
Motor Gasoline ³	240	251	-4.1	-	-	-
Distillate Fuel Oil	110	124	-11.2	-	-	-
Residual Fuel Oil	44	38	16.0	-	-	-
Other	294	304	-3.3	-	-	-
Total	688	716	-3.9	-	-	-
Total Crude Oil and Products	1,578	1,565	.9	-	-	-

¹ Includes alcohol and other hydrocarbon liquids.

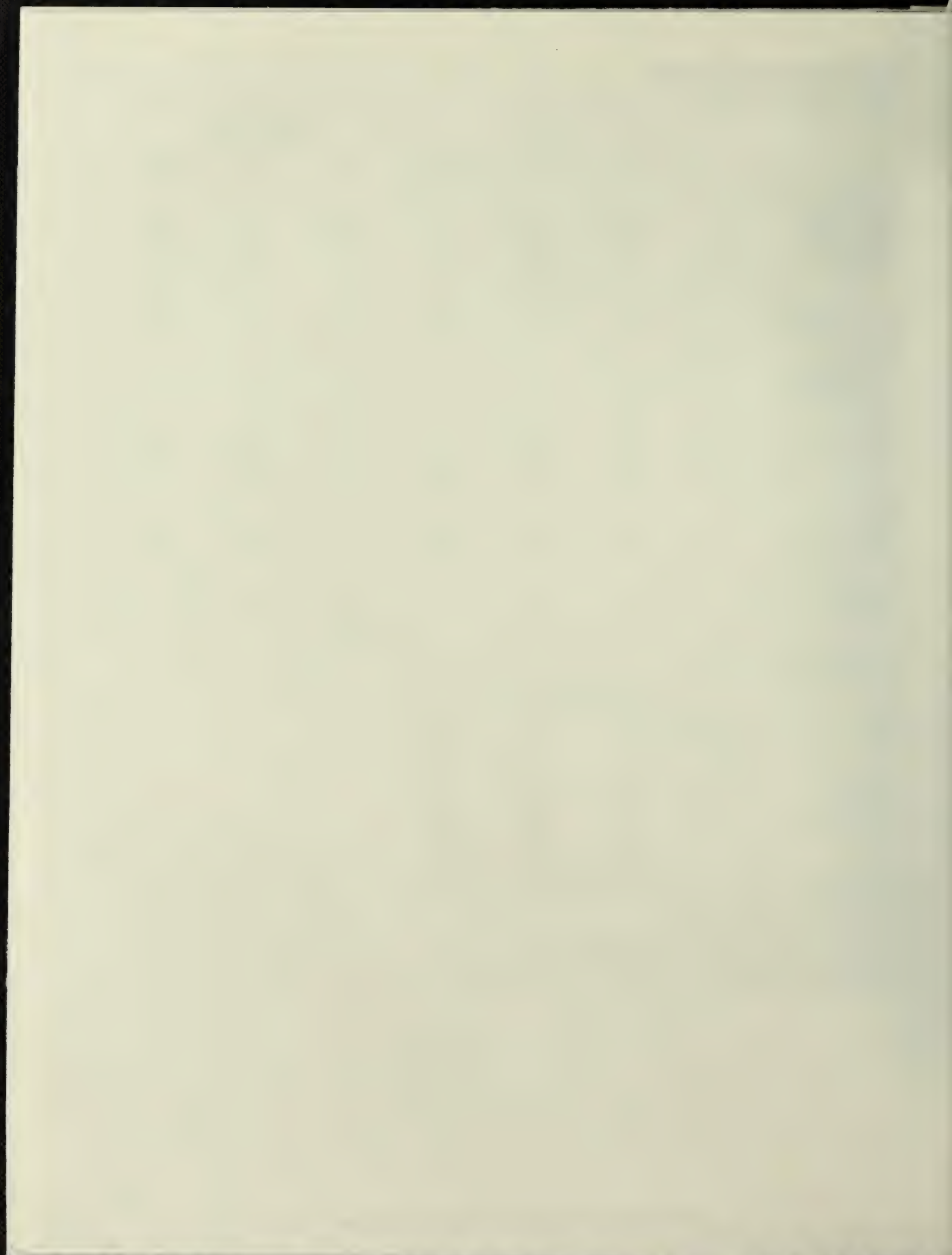
² Excludes Strategic Petroleum Reserve (SPR).

³ Including blending components.

(s) = Less than 0.05 million barrels per day/or less than 0.05 percent.

Note: Percent changes are based on unrounded values. February 1988 data are estimates based on weekly data. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, January 1988.



Proposed Changes to Petroleum Supply Surveys

The Energy Information Administration (EIA) is responsible for compiling and disseminating economic and statistical information on all forms of energy. Data on petroleum are gathered using a series of forms which comprise the Petroleum Supply Reporting System (PSRS). PSRS survey forms are subject to review every three years by the Office of Management and Budget (OMB). During this review, users and providers of data are encouraged to comment on the adequacy and usefulness of the data being published and the reporting burden associated with collecting them.

EIA has begun to review existing PSRS survey forms and to prepare a proposal for OMB review. Several changes to the forms have been proposed which will reduce respondent burden and better reflect current industry operations. These changes are summarized below.

- Form EIA-810 (Monthly Refinery Report)
 - Eliminate the reporting of beginning-of-month stocks.
 - Begin collecting data on inputs and production of naphthenic and paraffinic lubricants.
 - Begin separate reporting of inputs and production of ethylene, propylene and butylene.
- Form EIA-812 (Monthly Product Pipeline Report)
 - Begin collecting data on movements of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis.
- Form EIA-814 (Monthly Imports Report)
 - Begin collecting data on imports into the Virgin Islands and other U.S. territories.
- Form EIA-816 (Monthly Natural Gas Liquids Report)
 - Eliminate the reporting of beginning-of-month stocks.
 - Eliminate the reporting of products other than natural gas liquids.
 - Fractionators are required to report only end-of-month stocks.
- Form EIA-817 (Monthly Tanker and Barge Movement Report)
 - Begin collecting data on movements of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis.
- A Comment field has been added to all monthly and annual surveys to allow respondents the opportunity to explain any unusual aspects of their company's operations as it relates to the reported data.

Mockups of the proposed forms, modified instructions and definitions are now available. Comments from data providers and information users are an important element in the information gathering and dissemination process. Comments and recommendations must be in writing and mailed (postmarked) to the address below no later than **May 16, 1988**. To obtain a copy of the proposed forms, instructions or definitions, please contact **Audrey Corley** on (202) 586-1149 or write to the address below.

**Petroleum Supply Division, EI-42
Energy Information Administration
Room 2E-068
1000 Independence Avenue SW
Washington, DC 20585**

Bonded Aircraft Fuel Imports

With this issue of the *Petroleum Supply Monthly*, imports of bonded aircraft fuel show a significant change from volumes previously published for 1987. The EIA has found that bonded aircraft fuel imports have been understated by the amounts being withdrawn for international use.

The following table contains revised preliminary monthly data for kerosene-type jet fuel imports to account for the jet fuel that was withdrawn from bonded storage for international use in 1987. Data for January 1988 are included in Table 16 of the Detailed Statistics Section.

Kerosene-Type Jet Fuel Imports by PAD District: January-December 1987 (Thousand Barrels)

Commodity by PAD District	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1987 Total
PAD District I													
Bonded Aircraft Fuel	731	629	927	1,024	952	792	906	789	974	759	964	1,008	10,455
Other	417	884	873	692	70	626	518	460	560	85	490	589	6,264
Total	1,148	1,513	1,800	1,716	1,022	1,418	1,424	1,249	1,534	844	1,454	1,597	16,719
PAD District II													
Bonded Aircraft Fuel	0	0	218	0	0	382	0	69	72	780	150	0	1,671
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	218	0	0	382	0	69	72	780	150	0	1,671
PAD District III													
Bonded Aircraft Fuel	0	0	0	0	0	0	0	0	78	0	109	119	306
Other	0	0	0	0	0	0	32	55	0	168	0	0	255
Total	0	0	0	0	0	0	32	55	78	168	109	119	561
PAD District IV													
Bonded Aircraft Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PAD District V													
Bonded Aircraft Fuel	0	0	112	0	479	0	523	218	389	398	0	232	2,351
Other	0	0	47	156	0	53	6	6	364	112	7	13	764
Total	0	0	159	156	479	53	529	224	753	510	7	245	3,115
United States													
Bonded Aircraft Fuel	731	629	1,258	1,024	1,431	1,174	1,429	1,076	1,514	1,937	1,224	1,359	14,786
Other	417	884	920	848	70	679	556	521	924	365	497	602	7,283
Total	1,148	1,513	2,177	1,872	1,501	1,853	1,985	1,597	2,438	2,302	1,721	1,961	22,069

Note: Totals may not equal sum of components due to independent rounding.

U.S. Petroleum Import/Export Trends Through 1987

by Louise K. Duffy

Overview

Net imports¹ continued to play a strong role in U.S. petroleum supply in 1987, providing an increasing share of growing U.S. petroleum demand (measured as petroleum product supplied). In response to a stable economy and attractive oil prices, demand increased by 2 percent in 1987 to 16.6 million barrels per day. As domestic crude oil production continued to fall, net imports of crude oil and petroleum products registered their second consecutive annual increase, climbing 6 percent in 1987 to 5.8 million barrels per day, the highest level in 7 years. Prior to the current upward trend, net imports of crude oil and petroleum products had declined through the late 1970's and early 1980's from their 1977 peak of 8.6 million barrels per day. After reaching a low of 4.3 million barrels per day in 1982 and 1983, they rose to 4.7 million barrels per day in 1984, then dipped again to 4.3 million barrels per day in 1985, before increasing to their 1987 level. Net imports accounted for 35 percent of demand in 1987, about the same as in 1981. Net imports have contributed about a third of U.S. petroleum supply in recent years compared with 46 percent in the peak imports year of 1977.

Gross petroleum imports (crude oil and petroleum products) increased 5 percent in 1987 to an average of 6.5 million barrels per day. Crude oil imports increased for the second consecutive year, rising 11 percent over the 1986 level to 4.6 million barrels per day, as imports of refined petroleum products declined 7 percent from the 1986 level to 1.9 million barrels per day. As a result, crude oil accounted for about 71 percent

of all petroleum imports in 1987, compared with 63 to 68 percent in the previous 5 years.

For the second consecutive year, Canada was the leading source of U.S. petroleum imports, supplying 837,000 barrels per day, or nearly 13 percent of imports of crude oil and petroleum products. Venezuela supplied the second largest share, 768,000 barrels per day, 3 percent below the level in 1986. Saudi Arabia, providing 747,000 barrels per day of petroleum imports, emerged as the third largest supplier in 1987. Imports from Mexico, which had been the leading source of petroleum imports from 1982 to 1985, dropped for the second consecutive year to 645,000 barrels per day.

In 1977, when petroleum imports were at their peak, members of the Organization of Petroleum Exporting Countries (OPEC) supplied 70 percent of total U.S. petroleum imports and Arab OPEC members supplied 36 percent.² Saudi Arabia alone supplied nearly 16 percent of the imported petroleum, while Nigeria supplied another 13 percent in 1977. As new suppliers emerged following the price increases of the late 1970's, OPEC influence decreased. By 1985, the OPEC share of U.S. petroleum imports had declined to 36 percent and the Arab OPEC share had slipped to 9 percent, primarily as a result of the prohibition of crude oil imports from Libya by Presidential order in 1982 and marked declines in imports from Saudi Arabia and Nigeria. Over the past 2 years, as imports from Saudi Arabia and Nigeria began to climb again, the OPEC share increased to about 46 percent and the Arab OPEC share increased to 19 percent of the petroleum imported by the United States (Table FE1). Imports from Iran were prohibited by Presidential order in October 1987.

¹ Net imports equal imports minus exports.

² OPEC members are: Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. Arab members of OPEC are: Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Note: Unless otherwise noted, this article is based on information published in the *Petroleum Supply Monthly* December 1987 and January 1988 issues, DOE/EIA-0109, Tables S1-8, 19, and 22; and *Petroleum Supply Annual*, 1981-1986 issues, DOE/EIA-0340, Volume 1. These publications include data from the EIA-814 "Monthly Imports Report" survey and Bureau of the Census IM-145, EM-522, and EM-594 data. All data through 1986 are considered final and are not subject to further revision. Data for 1987 are preliminary and will be revised and published at a later date in the *Petroleum Supply Annual* 1987.

Table FE1. Origin of Petroleum Imports, 1981-1987
(Thousand Barrels per Day)

Origin of Imports	1981	1982	1983	1984	1985	1986	1987
Crude Oil							
Arab OPEC	1,774	736	533	634	300	854	957
Other OPEC	1,149	998	944	878	1,012	1,259	1,416
Non-OPEC	1,473	1,754	1,852	1,914	1,888	2,065	2,267
Total Crude Oil Imports	4,396	3,488	3,329	3,426	3,201	4,178	4,639
Refined Products							
Arab OPEC	74	118	98	185	172	308	298
Other OPEC	327	293	287	352	346	416	323
Non-OPEC	1,198	1,213	1,337	1,474	1,349	1,322	1,280
Total Product Imports	1,599	1,625	1,722	2,011	1,866	2,045	1,901
Total Crude and Product Imports	5,996	5,113	5,051	5,437	5,067	6,224	6,541

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Annual*, 1981 through 1986 issues, and *Petroleum Supply Monthly*, December 1987 issue.

Crude Oil Imports

Historically, crude oil has accounted for most of the petroleum imported into the United States. The share attributable to crude oil in 1987 was nearly 71 percent. Seven countries (Saudi Arabia, Canada, Mexico, Nigeria, Venezuela, the United Kingdom, and Indonesia) accounted for 74 percent of the crude oil imported in 1987. Each of these countries except Indonesia provided more than 300,000 barrels per day (Figure FE1).

Saudi Arabia was the leading source of crude oil imports in 1987, supplying 643,000 barrels per day or nearly 14 percent of gross imports of crude oil. This was the first time that Saudi Arabia contributed the largest share of crude oil imports since 1981, when it supplied 1.1 million barrels per day or 25 percent of U.S. crude oil imports. Despite production cutbacks to bolster sagging OPEC prices, Saudi Arabia remained a major supplier between 1981 and 1987.

Canada and Mexico supplied the next largest shares of crude oil imports in 1987. Nigeria, Venezuela, the United Kingdom, and Indonesia continued as major sources of foreign crude.

Crude oil imports from Canada have increased steadily since 1981. They averaged 607,000 barrels per day in 1987, compared with 164,000 barrels per day in 1981.

Mexico supplied 640,000 barrels per day of crude oil imports averaged over the 7-year period--more than any other country. Crude oil imports from Mexico peaked at 766,000 barrels per day in 1983, but have since declined and in 1987 averaged 602,000 barrels per day.

Crude oil imports from Nigeria have increased dramatically over the past 3 years, reaching 524,000 barrels per day in 1987. This upward trend followed a decline of more than 66 percent between 1981 and 1984, to a low of 207,000 barrels per day. Despite this drop, Nigeria remained an important supplier.

Venezuela continued to increase its share of U.S. crude oil imports in 1987. Venezuela was the source of 480,000 barrels per day of crude oil, more than 3 times the level in 1981, when it accounted for 3 percent of U.S. crude oil imports. Venezuela was the source of slightly more than 10 percent of the crude oil imports in 1987.

Figure FE1. Origin of U.S. Crude Oil Imports, 1987



Source: Energy Information Administration, *Petroleum Supply Monthly*, December 1987, Table 19, and Form EIA-814 "Monthly Imports Report."

Crude oil imports from the United Kingdom declined by about 4 percent in 1987, to 305,000 barrels per day. Crude oil imports from the United Kingdom averaged 369,000 barrels per day in 1981.

Imports of Indonesian crude oil fell to 254,000 barrels per day. This was 15 percent below the 1986 level and 20 percent below the 1981 level.

Three other countries (Angola, Colombia, and Algeria) supplied more than 100,000 barrels per day of crude oil imports in 1987. These three countries showed dramatic increases in the amounts of crude oil they supplied to the United States in 1987. Crude oil imports from Angola averaged 177,000 barrels per day, nearly 74 percent above the 1986 level and nearly 4 times the 1981 level. Colombia is also becoming a major supplier to the United States. In 1986, 57,000 barrels per day of crude oil were imported from Colombia. In 1987,

imports of crude oil from that country doubled and it became one of the 10 largest suppliers of U.S. crude oil imports. Historically, Algeria has been a major source of crude oil imports. However, Algeria's share dropped from about 6 percent in 1981 to less than 2 percent in 1986. Crude oil imports from this North African nation increased 35 percent between 1986 and 1987 to 105,000 barrels per day. Despite this increase, Algeria's share of U.S. crude oil imports remained about 2 percent.

Refined Product Imports

Refined products accounted for a smaller share of U.S. petroleum imports in 1987 than in recent years. In 1987, U.S. imports of refined products averaged about 1.9 million barrels per day, or 29 percent of all petroleum imports. Since 1982,

imports of refined products have ranged between 32 and 37 percent of total U.S. petroleum imports.

Four countries each provided more than 150,000 barrels per day of refined product imports to the United States in 1987. Venezuela provided 288,000 barrels per day of refined products, chiefly distillate, residual fuel, and motor gasoline. The U.S. Virgin Islands supplied 272,000 barrels per day, primarily residual fuel oil, unfinished oils, distillate fuel oil, and motor gasoline. Canada supplied 231,000 barrels per day, primarily propane and distillate fuel oil. Algeria supplied 178,000 barrels per day, including mainly residual fuel, naphtha, distillate, butane, unfinished oils, and propane. More than 60 other countries supplied refined products in quantities less than 150,000 barrels per day.

Residual fuel oil is the major imported refined product (Table FE2), although current levels are far below the 1981 level. Residual fuel oil imports averaged 553,000 barrels per day in 1987, about 29 percent of product imports.

In 1987, the Virgin Islands became the leading source of residual imports to the United States, supplying 94,000 barrels per day or 17 percent of the residual fuel imports. Algeria and Venezuela supplied 69,000 and 68,000 barrels per day, respectively. Together these three countries supplied nearly 42 percent of the residual imports in 1987. Five other sources--the Bahama Islands, Colombia, Trinidad and Tobago, Peru, and Canada--each supplied more than 20,000 barrels per day of U.S. imports of residual fuel oil in 1987.

Motor gasoline imports averaged 366,000 barrels per day in 1987, or 19 percent of the refined product imports, compared with 157,000 barrels per day in 1981. Of the finished motor

gasoline imported in 1987, unleaded fuel accounted for 90 percent (331,000 barrels per day) and leaded accounted for the remainder (35,000 barrels per day).

Six countries supplied 68 percent of the finished motor gasoline imports in 1987. Venezuela was the source of 64,000 barrels per day (unleaded). Brazil supplied 62,000 barrels per day (unleaded). The Virgin Islands supplied 26,000 barrels per day of unleaded and 7,000 barrels per day of leaded gasoline. The Netherlands supplied 18,000 barrels per day of unleaded and 15,000 barrels per day of leaded gasoline. Saudi Arabia provided 30,000 barrels per day (unleaded). Canada provided 23,000 barrels per day of unleaded and 3,000 barrels per day of leaded gasoline.

Imports of unfinished oils increased from 112,000 barrels per day in 1981 to 280,000 barrels per day or 15 percent of the refined product imports in 1987. The Virgin Islands, Venezuela, and Saudi Arabia together accounted for 46 percent of the unfinished oils imported into the United States in 1987. Imports of unfinished oils from Saudi Arabia increased dramatically over the past 2 years--from 5,000 barrels per day in 1985 to 48,000 barrels per day in 1987.

In 1987, distillate imports averaged 240,000 barrels per day and accounted for 13 percent of product imports, compared with 173,000 barrels per day in 1981. Four countries (Venezuela, the Virgin Islands, Canada, and Algeria) together supplied 82 percent of the distillate fuel imports in 1987, compared with 60 percent in 1981. Distillate imports from the Virgin Islands averaged 51,000 barrels per day in 1987, about 26 percent below the 1981 level. Distillate imports from Venezuela averaged 84,000 barrels per day, more than five times the 1981 level. Distillate imports from Canada averaged

Table FE2. Petroleum Product Imports, 1981-1987
(Thousand Barrels per Day)

	1981	1982	1983	1984	1985	1986	1987
Distillate Fuel Oil	173	93	174	272	200	247	240
Motor Gasoline	157	197	247	299	381	326	366
Residual Fuel Oil	800	776	699	681	510	669	553
Liquefied Petroleum Gases	244	226	190	195	187	242	190
Other Products	226	334	411	565	588	561	551
Total	1,599	1,625	1,722	2,011	1,866	2,045	1,901

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, December 1987 issue.

45,000 barrels per day, more than three times their 1981 level. Distillate imports from Algeria averaged 17,000 barrels per day, 21 percent above their 1981 level.

Exports

For the first time since 1984, petroleum exports declined slightly in 1987, averaging 773,000 barrels per day, about 2 percent below the 1986 level, but still about 30 percent above the 1981 level. Except for a 2-year decline between 1982 and 1984, petroleum exports had been climbing since 1975. Crude oil exports averaged 154,000 barrels per day in 1987, about the same as the 1986 level. Product exports averaged 619,000 barrels per day, or 2 percent below the 1986 level.

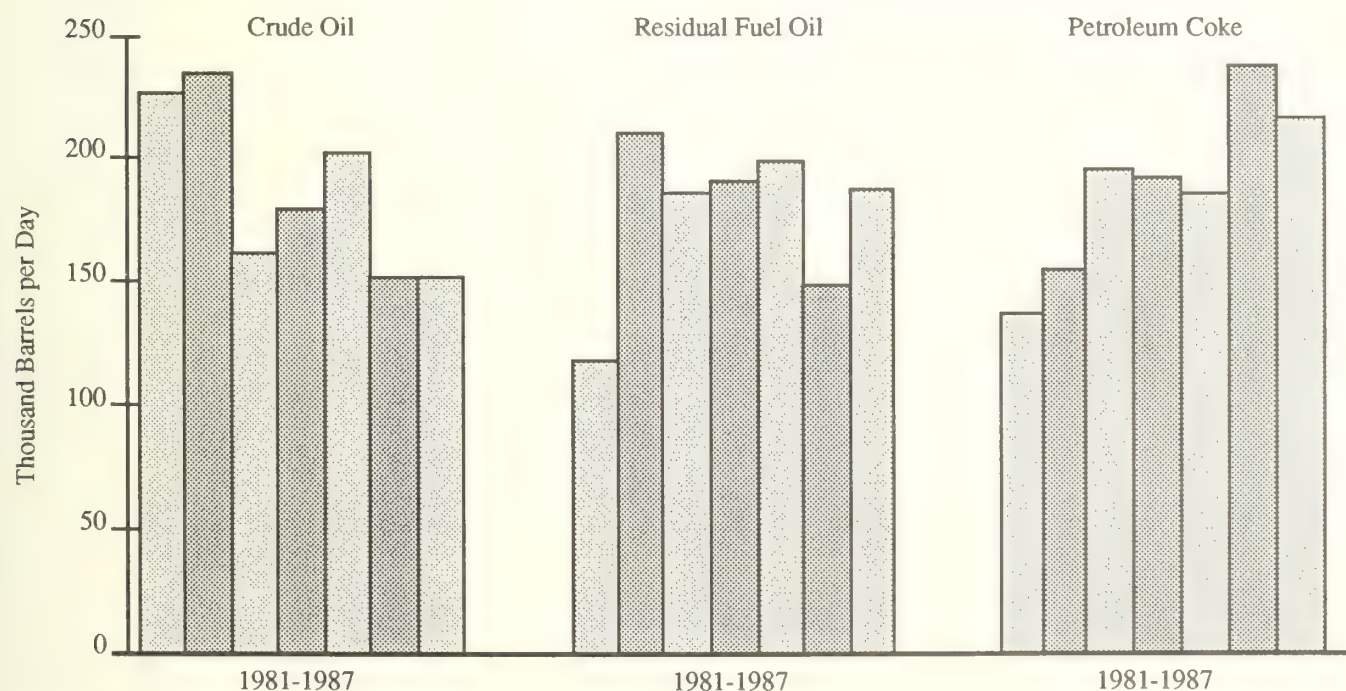
Petroleum coke is the leading petroleum commodity exported by the United States, accounting for nearly 28 percent of petroleum exports in 1987. Exports of petroleum coke in 1987 averaged 216,000 barrels per day, primarily to Japan, the Netherlands, Italy, Spain, Belgium, and Canada. These six

countries received three-fourths of the petroleum coke exported in 1987. Smaller quantities were exported to 42 other countries.

Crude oil exports averaged 154,000 barrels per day in 1987; this was 32 percent below the 1981 level. Crude oil exports are restricted to the following: crude oil from fields under the State waters of Alaska's Cook Inlet; certain domestic crude destined for Canada; and crude shipments to U.S. Territories. The U.S. Virgin Islands received 75 percent of crude oil exports in 1987, compared with 54 percent in 1981.

In 1987, residual fuel accounted for 186,000 barrels per day, or 24 percent of U.S. petroleum exports. Residual fuel exports increased nearly 27 percent between 1986 and 1987 (Figure FE2), with Mexico, the Netherlands Antilles, and Canada absorbing about 92 percent of the increase. In 1987, Mexico received 42,000 barrels per day of the residual fuel oil exports; Japan received 24,000 barrels per day; the Bahama Islands received 18,000 barrels per day; and the Netherlands Antilles and the Republic of Korea received 16,000 and 14,000 barrels per day, respectively. Together these five countries accounted for 61 percent of the residual fuel exports in 1987. Canada,

Figure FE2. Selected U.S. Petroleum Exports, 1981-1987



Source: Energy Information Administration, *Petroleum Supply Annual* 1981 through 1986 issues, and *Petroleum Supply Monthly* December 1987 issue.

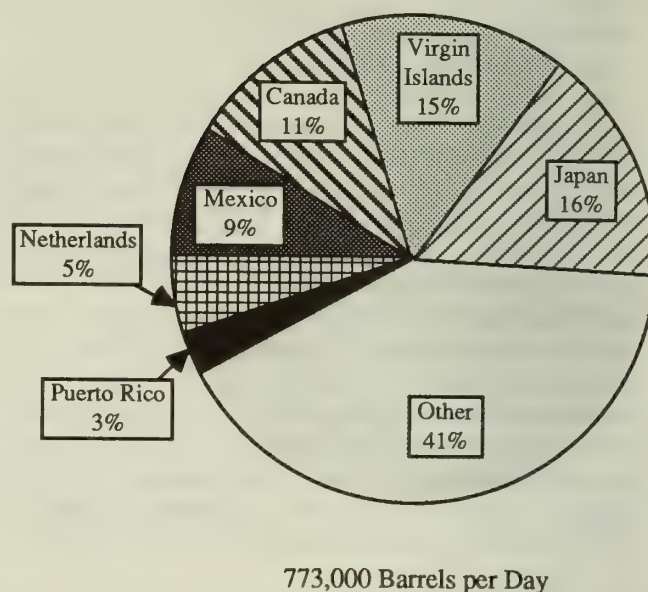
Taiwan, and Singapore each received 10,000 barrels per day in 1987.

Distillate fuel oil exports averaged 69,000 barrels per day in 1987, compared with 5,000 barrels per day in 1981. Japan received approximately 26 percent of the distillate fuel oil exported in 1987.

Four countries--Japan, the Virgin Islands, Canada, and Mexico--each received more than 50,000 barrels per day of U.S. petroleum exports in 1987. Together they accounted for more than half of all U.S. petroleum exports (Figure FE3). The same countries were major destinations for U.S. petroleum exports in 1981, although their receipts and relative shares changed over the period.

Petroleum coke exports to Japan averaged nearly 54,000 barrels per day and accounted for 44 percent of total U.S. petroleum exports to Japan in 1987. Residual and distillate fuel oils, motor gasoline, and jet fuel were among the other petroleum products exported to Japan in 1987. Crude oil accounted for virtually all of the petroleum exports to the Virgin Islands (116,000 barrels per day). Crude oil also accounted for 21 percent of the 88,000 barrels per day of petroleum exported to Canada in 1987. Liquefied petroleum gases, jet fuel, petroleum coke, distillate fuel oil, and residual fuel oil were among the other petroleum exports to Canada. Residual fuel oil accounted for 61 percent of the 70,000 barrels per day of petroleum exported to Mexico in 1987; liquefied petroleum gases accounted for more than half of the remainder.

Figure FE3. U.S. Petroleum Exports by Destination, 1987



Source: Energy Information Administration, *Petroleum Supply Annual*, 1981, Table 21 and *Petroleum Supply Monthly*, December, 1987.

Summary Statistics



Table S1. Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Liquids	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
								Thousand Barrels per Day
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	^a 1,074
1975	Average	10,045	8,375	1,633	^a -17	^a -15	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	^a 1,392
1981	Average	10,230	8,572	1,609	^a -290	^a 130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	^a 1,430
1983	Average	10,299	8,688	1,559	^a -214	^a 234	15,231	1,454
1984	Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985	Average	10,636	8,971	1,609	-50	153	15,726	1,519
1986	January	10,911	9,137	1,711	-383	-151	16,088	1,535
	February	10,916	9,173	1,696	-37	804	16,186	1,514
	March	10,664	9,013	1,604	-345	1,160	16,276	1,489
	April	10,435	8,864	1,523	41	262	15,945	1,479
	May	10,440	8,838	1,543	260	-1,109	15,993	1,506
	June	10,187	8,623	1,504	3	-1,238	16,049	1,543
	July	10,225	8,660	1,507	-541	-422	16,307	1,573
	August	9,875	8,374	1,445	242	-551	16,618	1,582
	September	9,852	8,328	1,468	-217	-973	15,909	1,618
	October	9,954	8,419	1,477	-233	476	16,602	1,610
	November	10,061	8,412	1,569	95	-147	16,221	1,612
	December	9,985	8,352	1,571	186	443	17,131	1,593
	Average	10,289	8,680	1,551	-78	-124	16,281	-
1987	January	^E 10,145	^E 8,477	1,592	-189	377	16,382	1,588
	February	^E 10,010	^E 8,318	1,625	(s)	814	16,721	1,565
	March	^E 10,025	^E 8,349	1,607	-151	266	15,965	1,561
	April	^E 10,077	^E 8,426	1,600	11	559	16,501	1,544
	May	^E 9,953	^E 8,305	1,593	82	-122	15,978	1,546
	June	^E 9,902	^E 8,263	1,590	-218	3	16,815	1,552
	July	^E 9,892	^E 8,242	1,588	25	-385	16,996	1,563
	August	^E 9,829	^E 8,190	1,577	-323	-678	16,325	1,594
	September	^E 9,845	^E 8,190	1,587	-209	-276	16,533	1,609
	October	^E 9,972	^E 8,293	1,609	-528	640	16,909	1,605
	November	^E 10,046	^E 8,330	1,641	-418	-651	16,064	1,637
	December	^E 10,034	^E 8,340	1,629	370	580	17,493	1,608
	Average	^E 9,977	^E 8,311	1,603	-129	90	16,556	-
1988	January*	^E 9,874	^{RE} 8,245	1,569	^R 56	^R 285	^R 17,224	^R 1,597
	February**	^E 10,061	^{PE} 8,353	^E 1,636	-334	847	17,213	1,578
	2-Mo. Average	^E 9,964	^{PE} 8,297	^E 1,602	-132	557	17,219	-
1987	2-Mo. Average	^E 10,081	^E 8,402	1,607	-100	585	16,543	-
1986	2-Mo. Average	10,913	9,154	1,704	-219	302	16,135	-

¹ Includes lease condensate.² A negative number indicates an increase in stocks and a positive number indicates a decrease.³ Stocks are totals as of end of period.⁴ Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.⁵ Includes stocks located in the Strategic Petroleum Reserve.⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.⁷ Net Imports equal Imports minus Exports.⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil¹ and Petroleum Products Overview (Continued)

		Imports			Exports			Net ⁷ Imports
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	Average	5,437	3,426	2,011	722	181	541	4,715
1985	Average	5,067	3,201	1,866	781	204	577	4,286
1986	January	5,573	3,472	2,101	859	159	700	4,714
	February	4,676	2,968	1,709	876	162	715	3,800
	March	4,712	2,988	1,724	732	212	520	3,980
	April	5,439	3,684	1,755	850	94	756	4,589
	May	6,400	4,250	2,150	724	98	625	5,676
	June	6,848	4,635	2,213	642	240	401	6,206
	July	6,942	4,726	2,216	685	65	620	6,256
	August	7,168	4,859	2,309	868	233	635	6,300
	September	7,090	5,031	2,059	714	161	553	6,375
	October	6,427	4,419	2,008	831	151	680	5,597
	November	6,592	4,615	1,977	821	115	706	5,771
	December	6,700	4,412	2,288	820	159	661	5,881
	Average	6,224	4,178	2,045	785	154	631	5,439
1987	January	6,186	4,385	1,801	829	96	732	5,358
	February	5,849	3,896	1,953	991	299	692	4,858
	March	5,618	3,742	1,875	726	165	561	4,892
	April	5,830	4,115	1,715	864	247	617	4,966
	May	5,918	4,243	1,675	659	69	590	5,259
	June	6,688	4,788	1,900	665	116	549	6,023
	July	7,448	5,259	2,189	674	149	525	6,773
	August	7,334	5,470	1,863	662	141	521	6,672
	September	7,051	5,085	1,965	792	116	676	6,258
	October	6,899	5,119	1,780	642	84	558	6,257
	November	6,905	4,939	1,966	737	164	573	6,168
	December	6,705	4,571	2,134	1,057	220	838	5,647
	Average	6,541	4,639	1,901	773	154	619	5,767
1988	January*	^R 6,900	^R 4,619	^R 2,281	891	212	679	6,009
	February**	6,551	4,636	1,916	^E 859	^E 185	^E 674	^E 5,693
	2-Mo. Average	6,731	4,627	2,104	^E 875	^E 199	^E 676	^E 5,856
1987	2-Mo. Average	6,026	4,153	1,873	905	192	713	5,121
1986	2-Mo. Average	5,147	3,233	1,915	867	160	707	4,280

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate.

* See Explanatory Note 9.1.

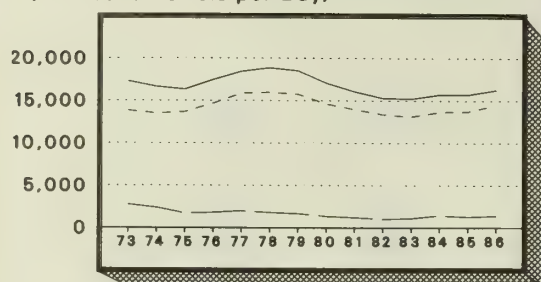
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

(Thousand Barrels per Day)



Annual

Legend
Petroleum Products Supplied
Refinery Production
Net Petroleum Products Imports

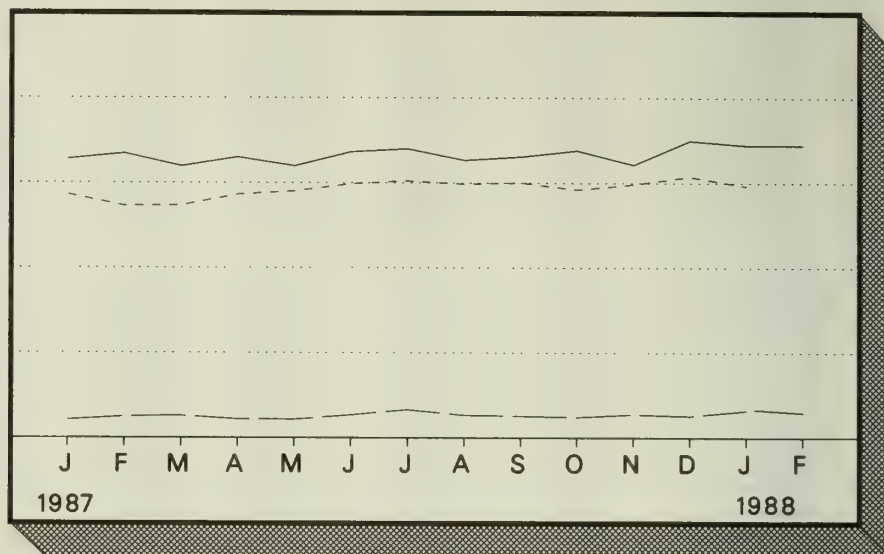
20,000

15,000

10,000

5,000

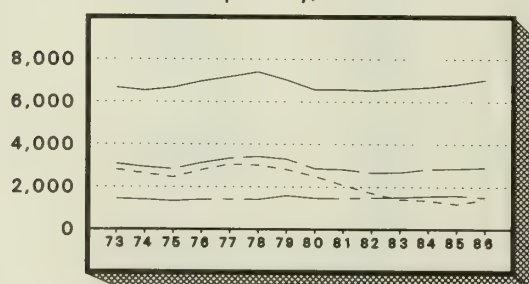
0



Monthly

Figure S2. Petroleum Products Supplied

(Thousand Barrels per Day)



Annual

Legend
Motor Gasoline
Distillate Fuel Oil
Residual Fuel Oil
Liquefied Petroleum Gases

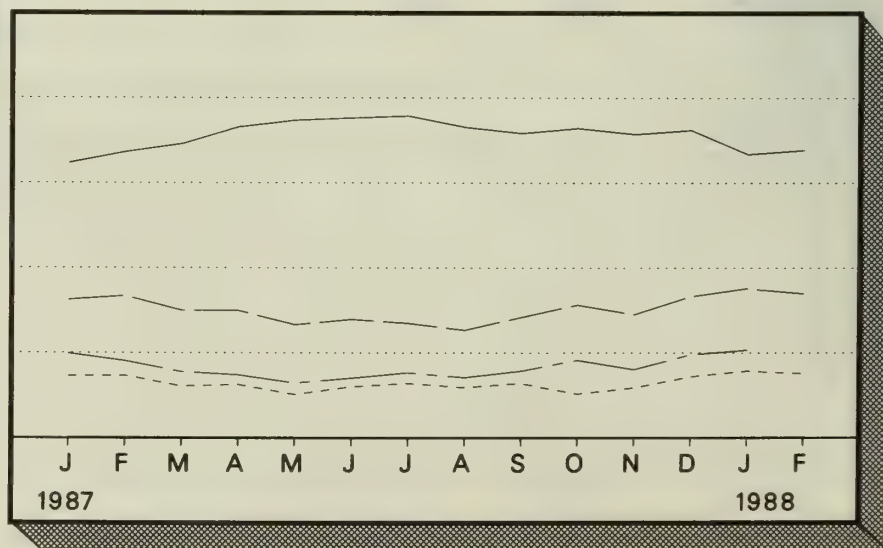
8,000

6,000

4,000

2,000

0



Monthly

Figure S3. Crude Oil Supply and Disposition

(thousand Barrels per Day)

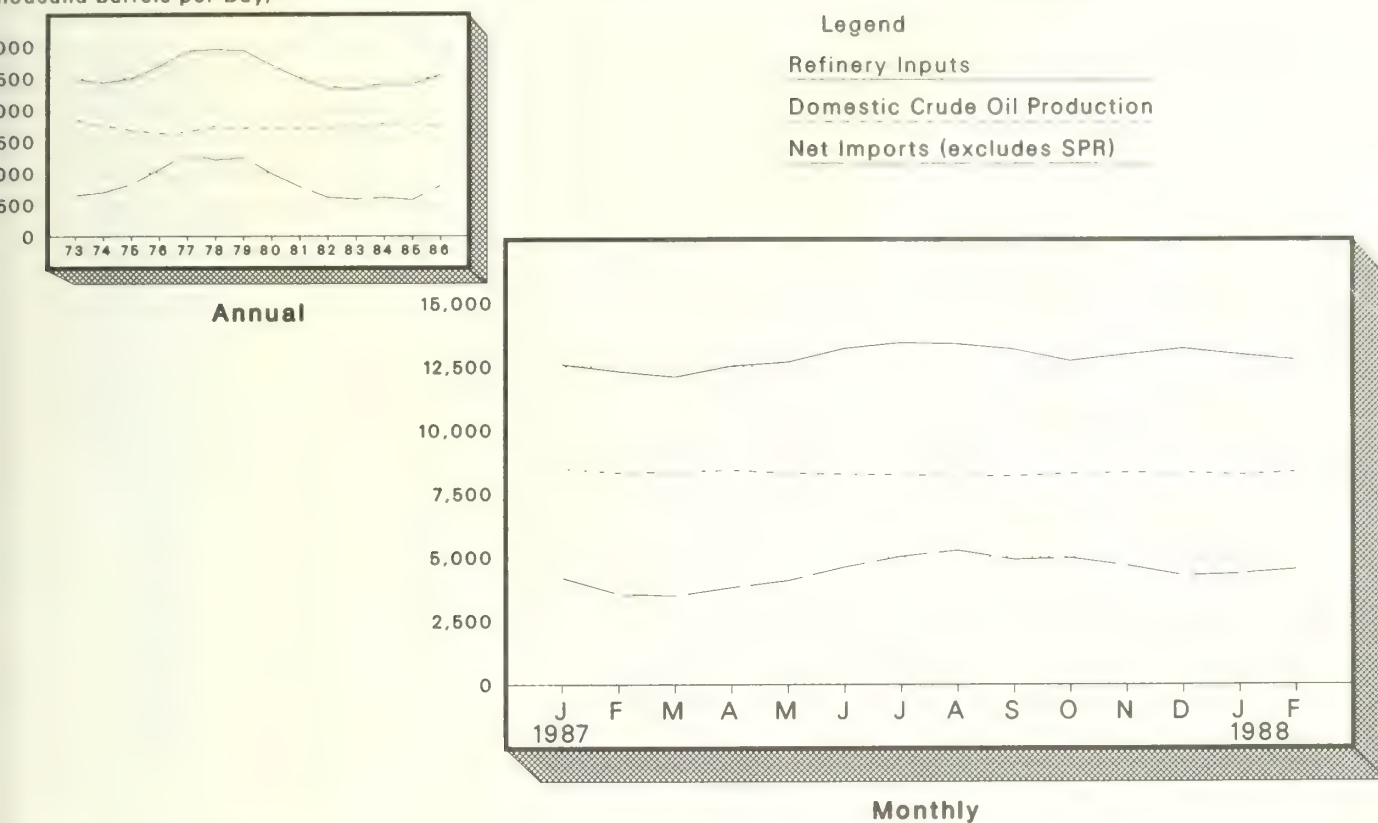


Figure S4. Crude Oil Ending Stocks

(Million Barrels)

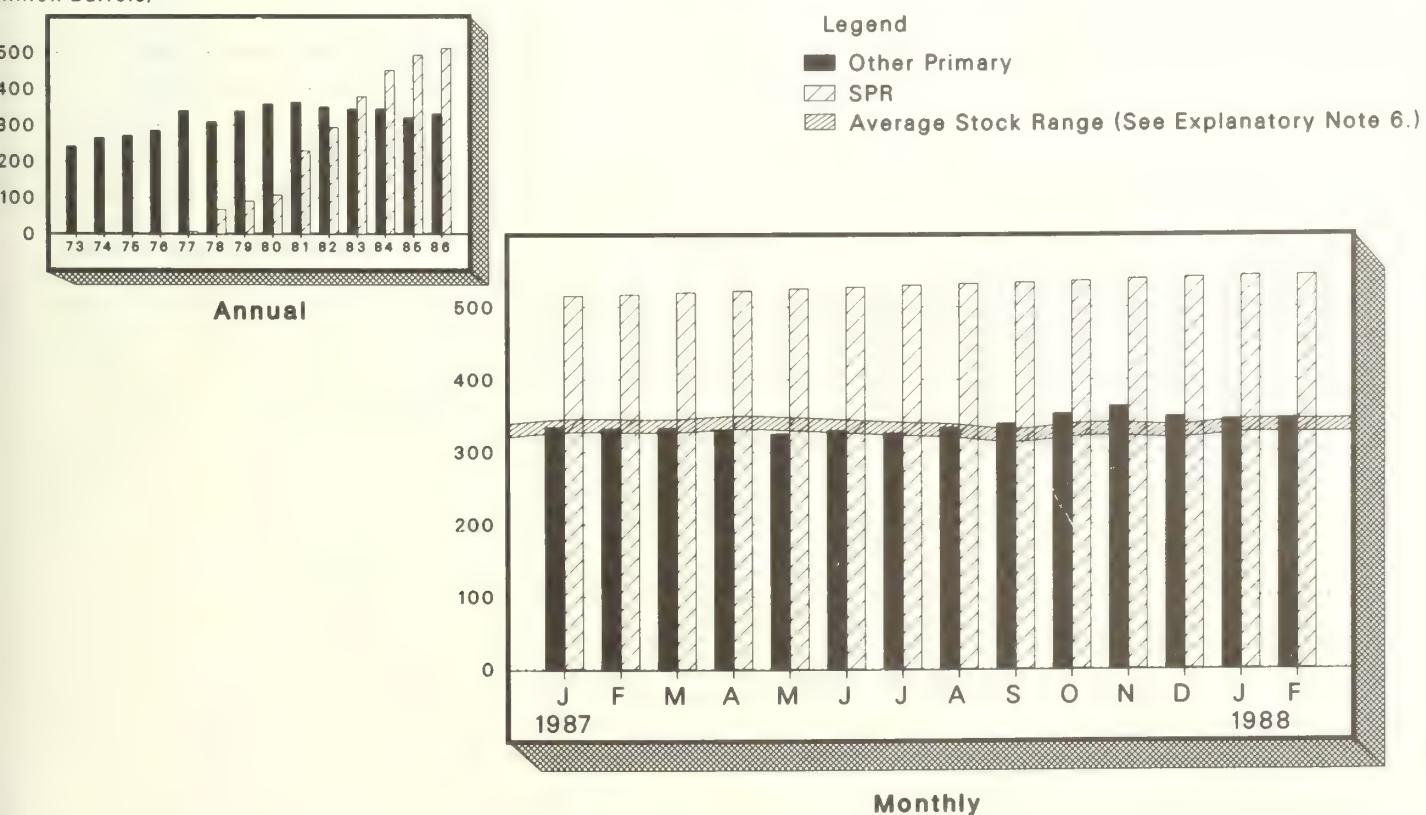


Table S2. Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil ⁵
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
Thousand Barrels per Day									
1973	Average	9,208	198	3,244	—	3,244	—	11	3
1974	Average	8,774	193	3,477	—	3,477	—	-62	-25
1975	Average	8,375	191	4,105	—	4,105	—	-17	17
1976	Average	8,132	173	5,287	—	5,287	—	-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	7 46	83
1982	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	Average	8,688	1,714	3,329	234	3,096	-234	7 20	114
1984	Average	8,879	1,722	3,426	197	3,229	-195	-4	185
1985	Average	8,971	1,825	3,201	118	3,083	-117	67	145
1986	January	9,137	1,870	3,472	51	3,420	-35	-348	364
	February	9,173	1,907	2,968	24	2,944	-35	-2	32
	March	9,013	1,860	2,988	59	2,929	-49	-296	259
	April	8,864	1,836	3,684	63	3,621	-63	104	70
	May	8,838	1,927	4,250	36	4,215	-35	295	79
	June	8,623	1,887	4,635	64	4,571	-64	66	292
	July	8,660	1,903	4,726	52	4,674	-52	-489	189
	August	8,374	1,811	4,859	51	4,809	-51	293	93
	September	8,328	1,782	5,031	47	4,984	-47	-170	161
	October	8,419	1,927	4,419	37	4,382	-36	-197	223
	November	8,412	1,883	4,615	45	4,570	-65	160	-136
	December	8,352	1,807	4,412	48	4,365	-68	254	28
	Average	8,680	1,867	4,178	48	4,130	-50	-28	139
1987	January	E 8,477	E 2,017	4,385	92	4,293	-108	-81	34
	February	E 8,318	E 1,853	3,896	44	3,851	-64	64	422
	March	E 8,349	E 1,968	3,742	95	3,647	-106	-45	349
	April	E 8,426	E 1,990	4,115	57	4,058	-67	78	249
	May	E 8,305	E 1,979	4,243	92	4,151	-101	183	143
	June	E 8,263	E 1,930	4,788	64	4,724	-69	-149	518
	July	E 8,242	E 1,910	5,259	76	5,183	-91	116	87
	August	E 8,190	E 1,908	5,470	63	5,407	-63	-259	215
	September	E 8,190	E 1,874	5,085	64	5,021	-64	-145	251
	October	E 8,293	E 1,986	5,119	57	5,062	-57	-471	-50
	November	E 8,330	E 2,068	4,939	97	4,842	-97	-321	320
	December	E 8,340	E 2,043	4,571	88	4,503	-68	438	180
	Average	E 8,311	E 1,961	4,639	73	4,567	-80	-50	224
1988	January*	RE 8,245	RE 1,999	R 4,619	R 67	R 4,552	R -67	R 123	303
	February**	PE 8,353	PE 2,097	4,636	48	4,588	-48	-286	E 327
	2-Mo. Average	PE 8,297	PE 2,046	4,627	58	4,570	-58	-75	E 315
1987	2-Mo. Average	E 8,402	E 1,939	4,153	70	4,083	-87	-12	218
1986	2-Mo. Average	9,154	1,888	3,233	38	3,194	-35	-184	206

¹ Includes lease condensate.² Stocks are totals as of end of period.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Strategic Petroleum Reserve.⁵ A balancing item.⁶ Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.⁷ Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels.

See Explanatory Notes 10 and 11.

Footnotes continued on following page.

Table S2. Crude Oil¹ Supply and Disposition (Continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ⁶	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁶	Total	SPR ⁴	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	Average	-19	13	12,431	2	—	242	—	242
1974	Average	-15	13	12,133	3	—	265	—	265
1975	Average	-17	13	12,442	6	—	271	—	271
1976	Average	-18	15	13,416	8	—	285	—	285
1977	Average	-14	16	14,602	50	—	348	7	340
1978	Average	-14	16	14,739	158	—	376	67	309
1979	Average	-13	16	14,648	235	—	430	91	339
1980	Average	-13	15	13,481	287	—	466	108	358
1981	Average	-58	5	12,470	228	—	594	230	363
1982	Average	-59	3	11,774	236	—	644	294	350
1983	Average	—	2	11,685	164	66	723	379	344
1984	Average	—	2	12,044	181	64	796	451	345
1985	Average	—	1	12,002	204	60	814	493	321
1986	January	—	1	12,374	159	57	826	494	332
	February	—	(s)	11,918	162	56	827	495	332
	March	—	(s)	11,652	212	52	838	497	341
	April	—	(s)	12,512	94	51	837	499	338
	May	—	(s)	13,279	98	49	829	500	329
	June	—	(s)	13,261	240	52	828	502	327
	July	—	(s)	12,917	65	51	845	503	342
	August	—	(s)	13,287	233	48	838	505	333
	September	—	(s)	13,097	161	45	844	506	338
	October	—	(s)	12,636	151	41	851	508	344
	November	—	(s)	12,831	115	41	849	509	339
	December	—	(s)	12,777	159	42	843	512	331
	Average	—	(s)	12,716	154	49	—	—	—
1987	January	—	1	12,570	96	41	849	515	334
	February	—	(s)	12,296	299	41	849	517	332
	March	—	1	12,085	165	39	853	520	333
	April	—	(s)	12,513	247	41	853	522	331
	May	—	(s)	12,662	69	42	850	525	325
	June	—	(s)	13,200	116	36	857	527	330
	July	—	(s)	13,432	149	32	856	530	326
	August	—	(s)	13,381	141	31	866	532	334
	September	—	(s)	13,174	116	28	873	534	339
	October	—	(s)	12,725	84	25	889	536	353
	November	—	(s)	12,982	164	25	901	539	363
	December	—	(s)	13,210	220	31	890	541	349
	Average	—	(s)	12,856	154	34	—	—	—
1988	January*	—	(s)	^R 12,975	212	36	^R 888	543	^R 345
	February**	—	^E (s)	12,769	^E 185	^E 27	890	544	346
	2-Mo. Average	—	^E (s)	12,875	^E 199	^E 32	—	—	—
1987	2-Mo. Average	—	(s)	12,440	192	41	—	—	—
1986	2-Mo. Average	—	1	12,157	160	57	—	—	—

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹									
		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ²	Total Arab OPEC ⁴
		Thousand Barrels per Day									
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993
1974	Average	190	4	461	74	300	469	713	979	88	3,280
1975	Average	282	232	715	117	390	280	762	702	122	3,601
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323
1982	Average	170	26	552	92	248	35	514	412	97	2,146
1983	Average	240	0	337	30	338	48	302	422	144	1,862
1984	Average	323	1	325	117	343	10	216	548	166	2,049
1985	Average	187	4	168	45	314	27	293	605	187	1,830
1986	January	215	0	664	11	290	0	278	629	210	2,298
	February	157	0	574	0	290	(s)	204	518	64	1,807
	March	260	0	482	0	161	0	328	797	117	2,145
	April	275	0	698	21	292	0	319	831	139	2,576
	May	193	0	574	40	314	40	398	899	290	2,749
	June	319	0	662	83	353	0	382	772	439	3,010
	July	310	0	738	59	532	66	542	730	330	3,307
	August	363	0	680	37	274	93	606	916	378	3,346
	September	245	0	810	62	341	31	684	856	358	3,383
	October	305	0	697	147	388	0	530	863	346	3,276
	November	311	0	868	34	335	0	483	843	214	3,088
	December	291	0	769	30	251	0	511	841	284	2,976
	Average	271	0	685	44	318	19	440	793	265	2,837
1987	January	158	0	873	15	285	0	313	866	215	2,726
	February	315	0	772	54	420	30	240	764	155	2,749
	March	301	0	427	0	308	73	312	658	135	2,215
	April	302	0	452	62	236	47	529	679	77	2,384
	May	196	0	519	28	289	75	530	854	95	2,584
	June	247	0	780	45	261	155	546	766	268	3,067
	July	326	0	753	42	273	237	787	861	157	3,437
	August	235	0	958	103	312	208	732	780	351	3,679
	September	351	0	902	146	236	193	615	798	287	3,528
	October	267	0	1,042	111	297	86	518	775	401	3,497
	November	378	0	633	97	205	41	607	739	402	3,101
	December	339	0	853	7	216	23	613	672	220	2,941
	Average	284	0	747	59	277	98	530	768	231	2,994
1988	January	312	0	894	61	179	⁵ ₁	406	752	592	3,197

¹ Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

² "Other OPEC" consists of Ecuador, Gabon, Iraq, Kuwait, and Qatar.

³ "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members.

⁴ The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources ⁶										Total Imports
		Baha- mas	Canada	Mexico	Nether- lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non- OPEC	Total Non- OPEC	
		Thousand Barrels per Day										
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	530	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	January	62	823	681	58	108	333	21	326	862	3,275	5,573
	February	33	690	557	11	85	218	18	309	949	2,870	4,676
	March	18	750	616	27	79	178	25	186	688	2,567	4,712
	April	34	798	694	13	111	188	23	209	793	2,863	5,439
	May	32	881	743	37	130	365	27	237	1,199	3,651	6,400
	June	29	753	884	17	167	569	30	233	1,157	3,838	6,848
	July	44	763	850	25	131	353	29	237	1,202	3,634	6,942
	August	39	801	738	12	133	584	7	214	1,294	3,822	7,168
	September	15	801	615	17	162	437	23	291	1,345	3,706	7,090
	October	38	842	680	26	112	173	21	215	1,043	3,151	6,427
	November	39	960	565	53	129	448	21	179	1,111	3,504	6,592
	December	57	809	746	7	148	351	12	291	1,304	3,724	6,700
	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	54	777	669	29	99	419	33	327	1,053	3,461	6,186
	February	54	762	689	30	111	235	24	296	900	3,100	5,849
	March	33	720	699	11	124	311	17	247	1,240	3,402	5,618
	April	43	808	667	12	113	485	24	259	1,034	3,446	5,830
	May	31	865	569	26	117	408	21	214	1,082	3,334	5,918
	June	22	898	654	13	114	377	21	281	1,240	3,621	6,688
	July	46	890	664	58	96	334	17	288	1,618	4,011	7,448
	August	26	837	564	51	98	289	20	274	1,496	3,655	7,334
	September	36	835	699	42	105	254	25	271	1,256	3,523	7,051
	October	17	932	658	16	88	320	17	250	1,104	3,402	6,899
	November	20	818	627	14	111	425	15	235	1,540	3,804	6,905
	December	7	896	588	24	67	324	23	327	1,508	3,764	6,705
	Average	32	837	645	27	103	349	21	272	1,259	3,547	6,541
1988	January	49	953	767	40	104	215	29	341	1,205	3,703	6,900

Footnotes continued.

⁶ Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)

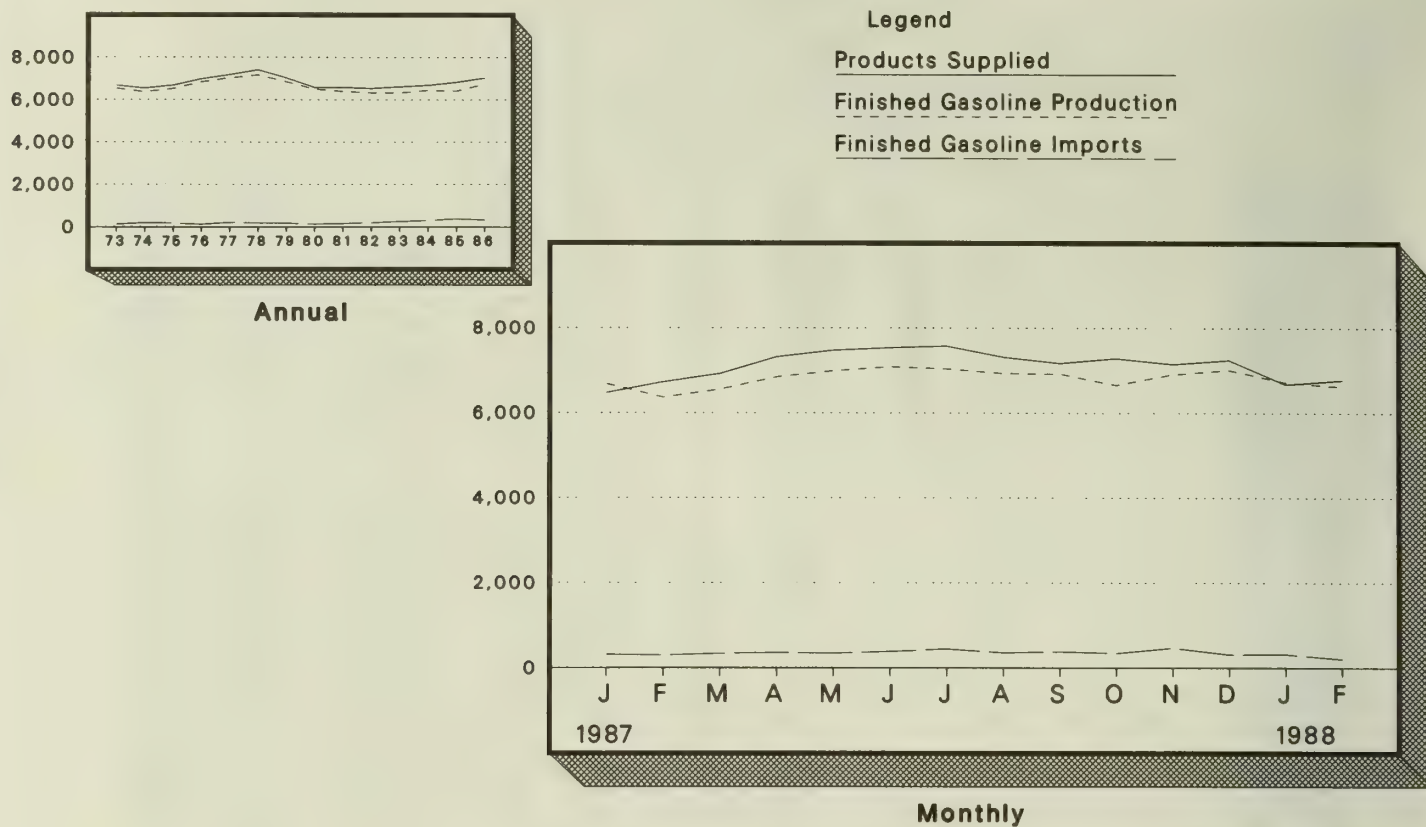
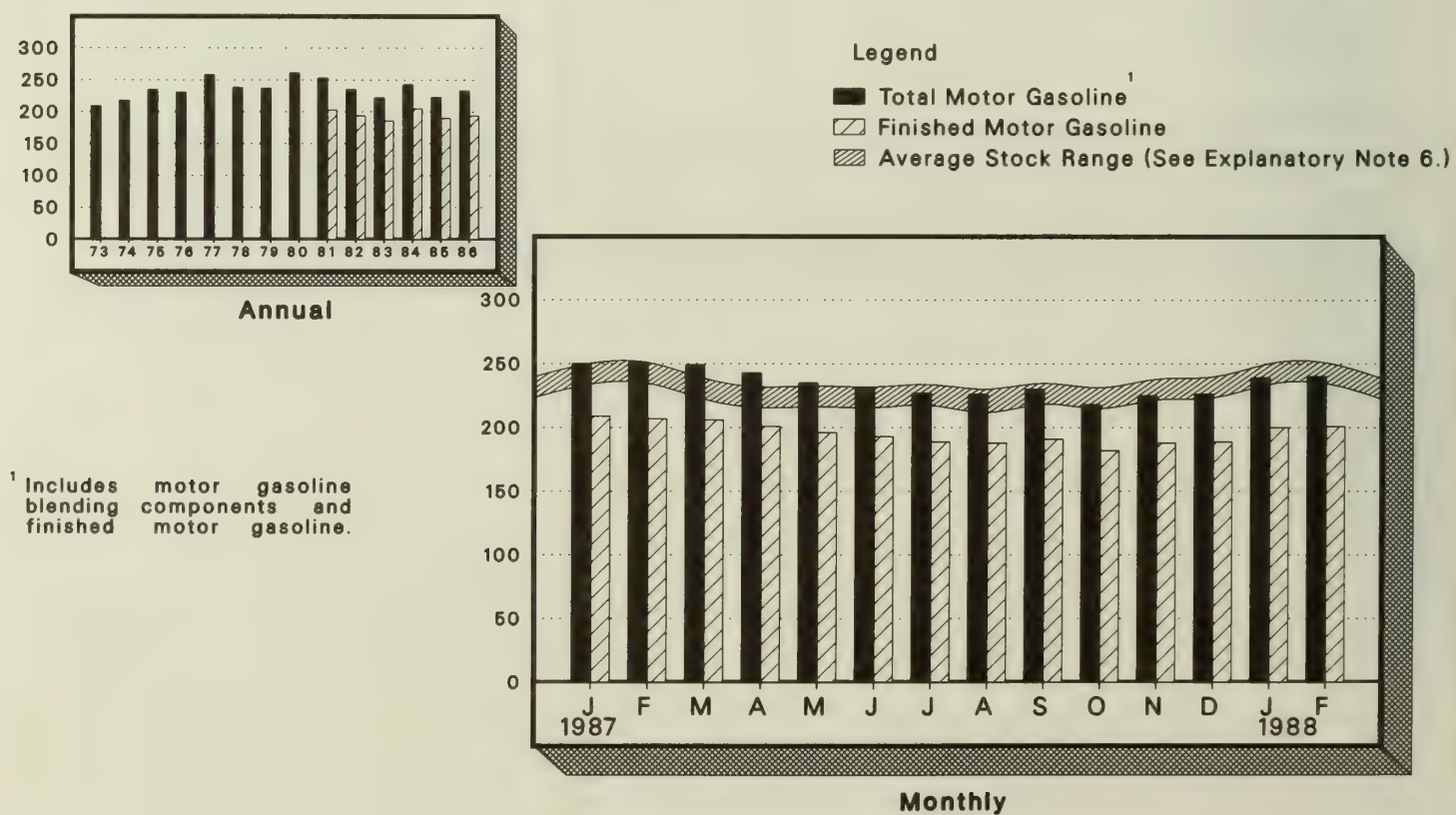


Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)



¹ Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawal ^{2,3}	Exports	Product Supplied		Total Motor Gasoline ⁵	Finished Motor Gasoline	
						Total ⁴	Unleaded			Unleaded
								Thousand Barrels per Day		
1973	Average	6,535	134	9	4	6,674	--	--	209	--
1974	Average	6,360	204	-24	2	6,537	--	--	⁶ 218	--
1975	Average	6,520	184	⁶ -28	2	6,675	--	--	235	--
1976	Average	6,841	131	10	3	6,978	--	--	231	--
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	--
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	--
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	25	20	6,539	3,409	52.1	⁶ 235	--
1983	Average	6,340	247	⁶ 45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	-54	6	6,693	3,987	59.6	243	205
1985	Average	6,419	381	41	10	6,831	4,406	64.5	223	190
1986	January	6,522	332	-347	6	6,502	4,404	67.7	238	201
	February	6,302	334	-156	11	6,469	4,365	67.5	244	205
	March	6,061	224	691	21	6,955	4,678	67.3	219	184
	April	6,498	291	338	23	7,105	4,783	67.3	207	174
	May	7,095	471	-450	9	7,106	4,729	66.5	221	188
	June	7,101	392	-265	18	7,209	4,914	68.2	230	196
	July	6,956	337	189	47	7,436	5,182	69.7	224	190
	August	7,092	303	83	43	7,435	5,138	69.1	222	187
	September	6,891	303	-289	40	6,864	4,813	70.1	234	196
	October	6,616	322	372	61	7,250	5,086	70.1	222	184
	November	6,895	280	-200	96	6,879	4,918	71.5	229	190
	December	6,970	320	-122	24	7,143	5,193	72.7	233	194
	Average	6,752	326	-11	33	7,034	4,854	69.0	--	--
1987	January	6,688	320	-484	55	6,469	4,775	73.8	250	209
	February	6,367	303	78	22	6,726	4,991	74.2	251	207
	March	6,555	342	43	20	6,921	5,150	74.4	249	206
	April	6,851	362	145	42	7,317	5,401	73.8	243	201
	May	6,991	348	181	48	7,472	5,577	74.6	235	196
	June	7,089	385	103	46	7,531	5,657	75.1	231	193
	July	7,041	448	119	33	7,575	5,734	75.7	227	189
	August	6,933	361	38	19	7,313	5,628	77.0	226	188
	September	6,925	383	-109	30	7,170	5,500	76.7	230	191
	October	6,662	348	300	21	7,289	5,616	77.1	218	182
	November	6,914	474	-205	32	7,151	5,587	78.1	225	188
	December	7,017	318	-29	59	7,247	5,711	78.8	226	189
	Average	6,839	366	15	36	7,184	5,447	75.8	--	--
1988	January*	^R 6,723	^R 324	^R -361	^B	^R 6,679	5,392	80.7	^R 239	200
	February**	6,628	215	-26	^E 42	6,775	5,400	79.7	240	201
	2-Mo. Average	6,677	272	-199	^E 25	6,725	5,396	80.2	--	--
1987	2-Mo. Average	6,536	312	-217	39	6,591	4,877	74.0	--	--
1986	2-Mo. Average	6,418	333	-256	8	6,486	4,385	67.6	--	--

¹ Stocks are totals as of end of period.² Beginning in 1981, excludes blending components.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Includes gasohol.⁵ Includes motor gasoline blending components.⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

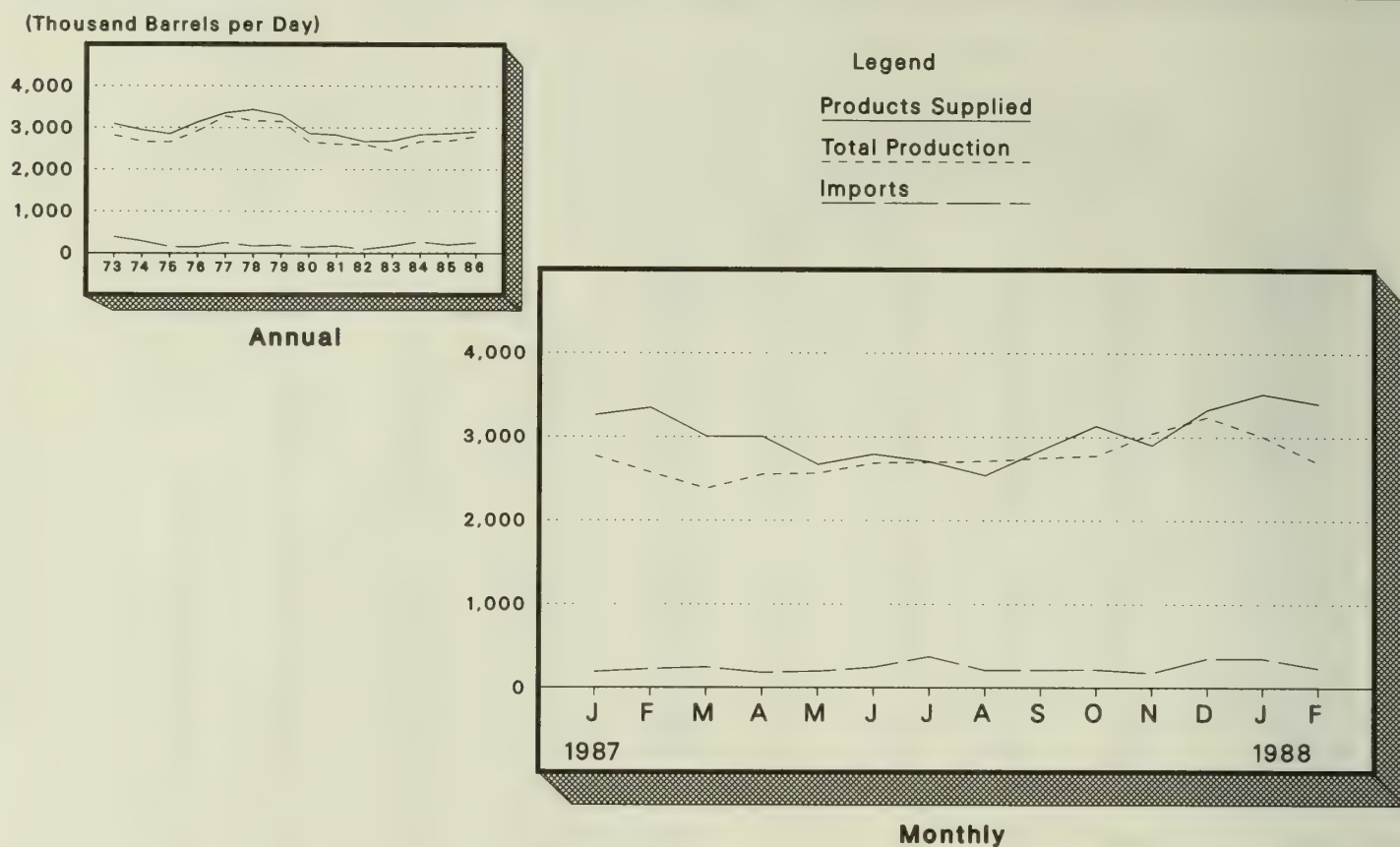


Figure S8. Distillate Fuel Oil Ending Stocks

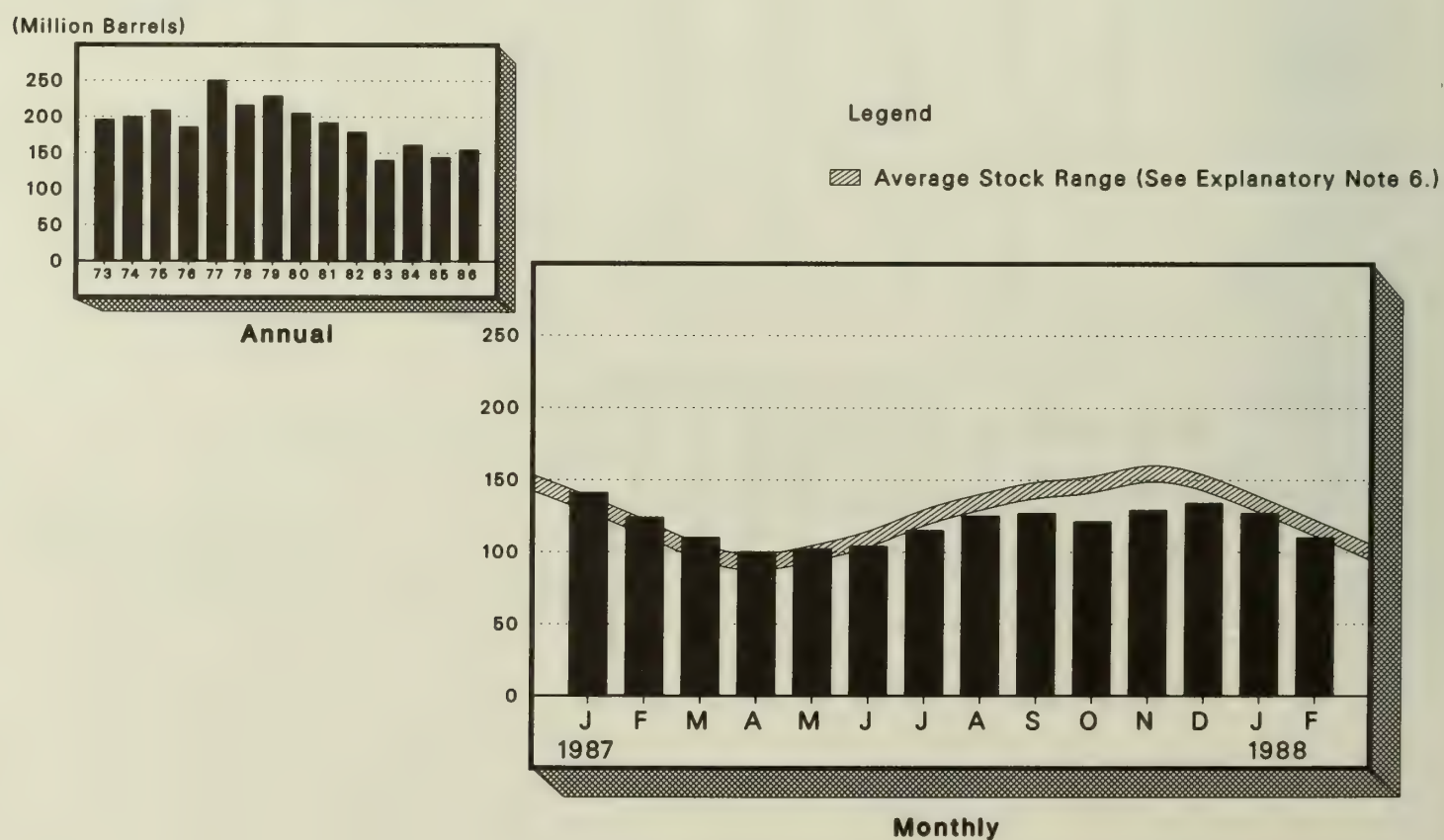


Table S5. Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
								Million Barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	⁴ 179
1983	Average	2,456	174	⁴ 124	—	64	2,690	140
1984	Average	2,681	272	-57	—	51	2,845	161
1985	Average	2,687	200	48	—	67	2,868	144
1986	January	2,899	325	232	--	126	3,330	136
	February	2,563	169	860	--	176	3,416	112
	March	2,643	217	438	--	131	3,168	99
	April	2,788	147	97	--	128	2,904	96
	May	2,858	149	-95	--	149	2,762	99
	June	2,729	169	-301	--	53	2,544	108
	July	2,710	313	-355	--	75	2,592	119
	August	2,922	370	-607	--	64	2,621	138
	September	2,865	262	-489	--	98	2,540	152
	October	2,717	243	25	--	74	2,912	152
	November	2,917	254	-222	--	72	2,877	158
	December	2,943	339	102	--	55	3,329	155
		Average	2,798	247	-31	—	100	2,914
1987	January	2,774	197	440	--	152	3,259	141
	February	2,574	229	637	--	93	3,347	124
	March	2,384	251	437	--	67	3,005	110
	April	2,553	185	319	--	53	3,004	100
	May	2,565	201	-45	--	51	2,670	102
	June	2,689	248	-82	--	61	2,793	104
	July	2,700	378	-336	--	38	2,704	115
	August	2,711	215	-338	--	47	2,540	125
	September	2,750	217	-59	--	64	2,844	127
	October	2,778	222	187	--	53	3,134	121
	November	3,043	180	-263	--	56	2,904	129
	December	3,241	354	-176	--	92	3,327	134
		Average	2,731	240	56	—	69	2,959
1988	January*	^R 3,008	^R 355	^R 236	--	82	^R 3,517	^R 127
	February**	2,696	242	533	--	^E 70	3,401	110
	2-Mo. Average	2,857	300	380	—	^E 76	3,461	—
1987	2-Mo. Average	2,679	212	533	—	124	3,301	—
1986	2-Mo. Average	2,739	251	530	—	149	3,371	—

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

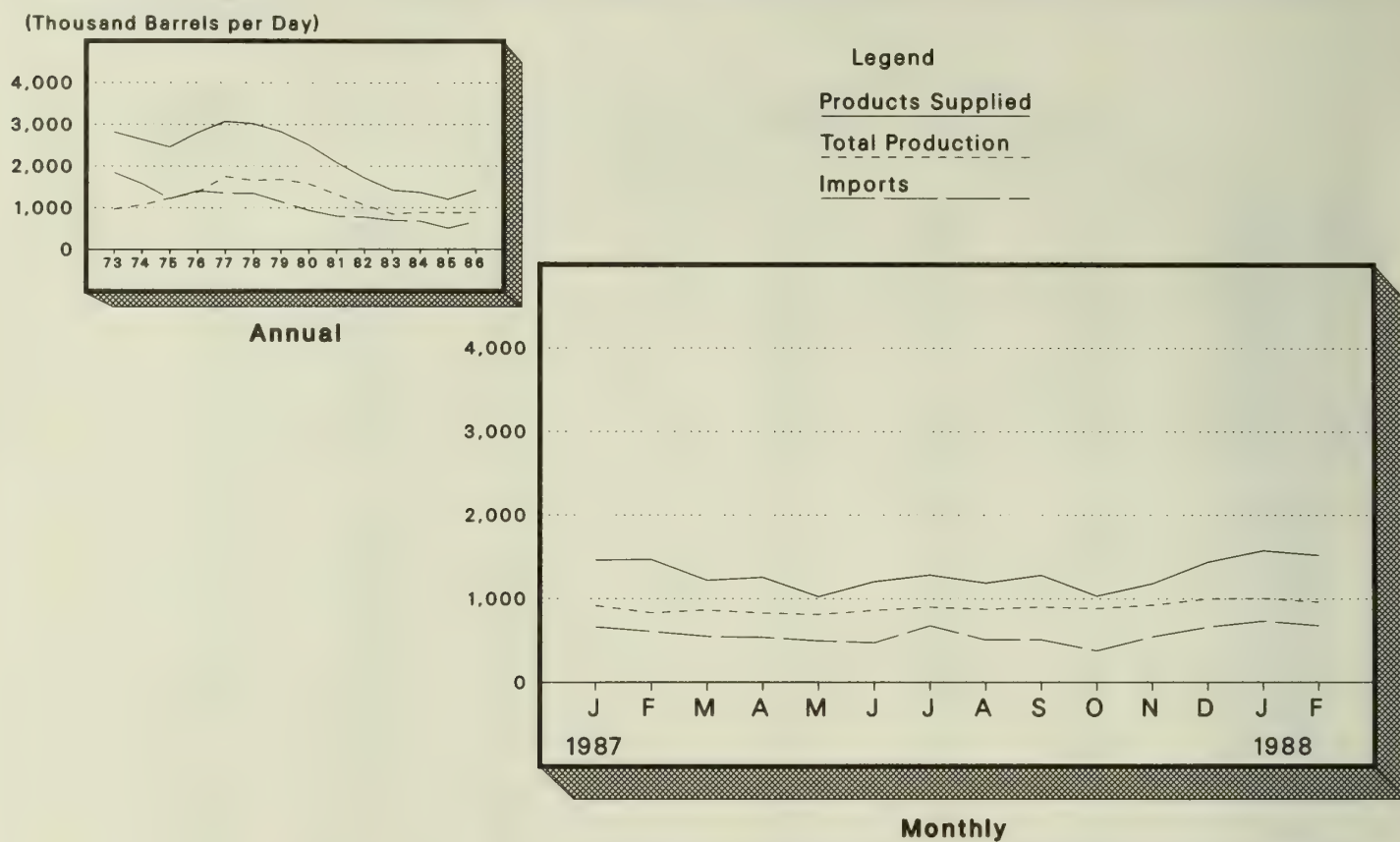


Figure S10. Residual Fuel Oil Ending Stocks

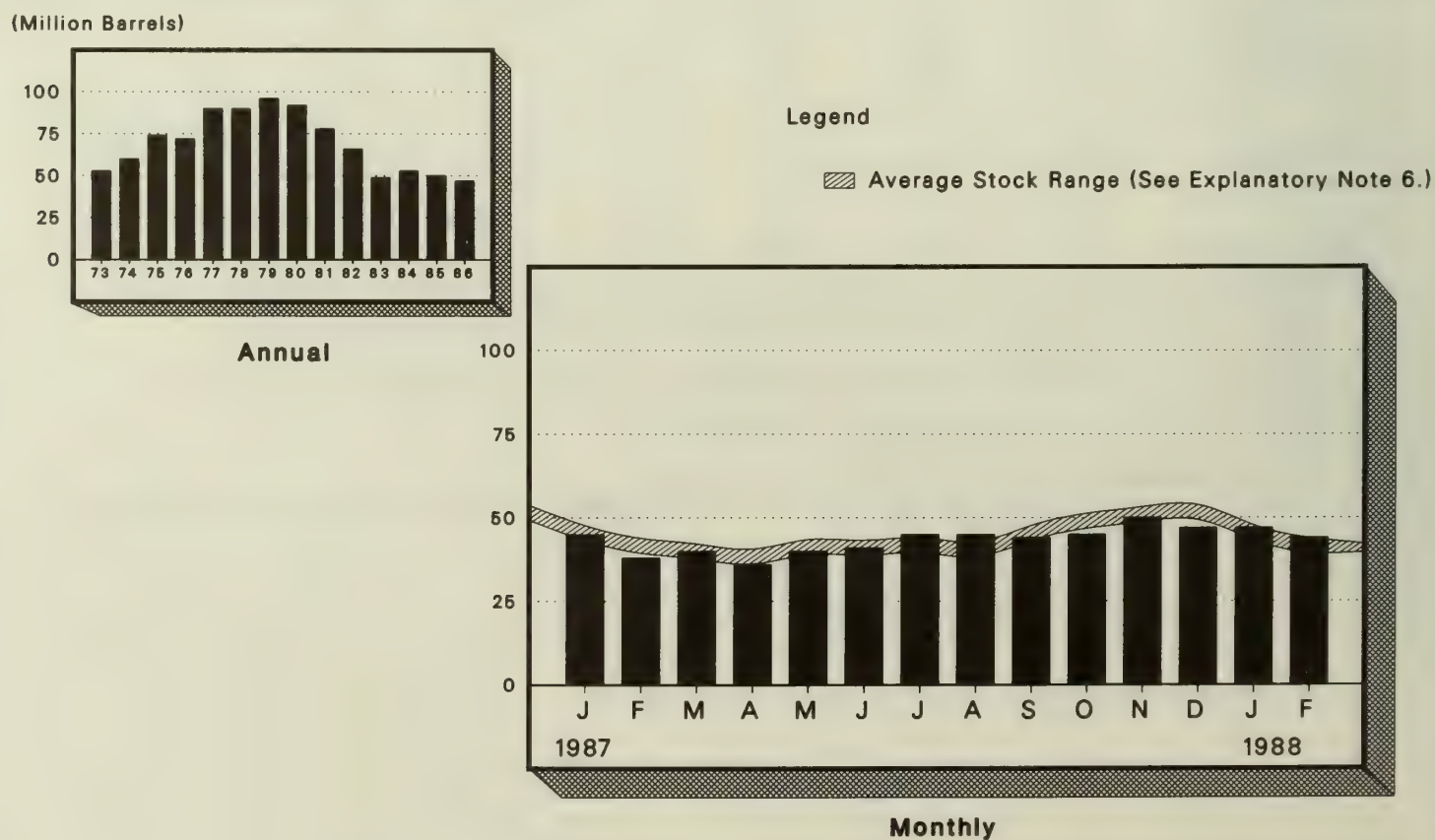


Table S6. Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
Thousand Barrels per Day								Million Barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	5	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	⁴ 92
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	⁴ 66
1983	Average	852	699	⁴ 55	-	185	1,421	49
1984	Average	891	681	-12	-	190	1,369	53
1985	Average	882	510	7	-	197	1,202	50
1986	January	940	622	56	--	211	1,407	49
	February	856	604	200	--	183	1,478	43
	March	813	626	108	--	113	1,435	40
	April	933	545	127	--	202	1,402	36
	May	913	675	-114	--	129	1,345	39
	June	818	712	-111	--	43	1,377	43
	July	850	673	75	--	90	1,508	40
	August	896	793	-29	--	174	1,485	41
	September	854	641	-89	--	110	1,296	44
	October	827	635	-59	--	144	1,259	46
	November	975	574	-15	--	143	1,391	46
	December	987	913	-37	--	224	1,638	47
	Average	889	669	8	--	147	1,418	--
	1987	January	919	667	80	--	204	1,462
February		833	612	246	--	221	1,470	38
March		867	552	-48	--	150	1,220	40
April		831	541	123	--	239	1,257	36
May		814	498	-142	--	144	1,026	40
June		863	477	-33	--	101	1,206	41
July		902	680	-122	--	175	1,285	45
August		877	511	-12	--	185	1,190	45
September		905	513	42	--	177	1,283	44
October		885	380	-36	--	194	1,035	45
November		925	546	-145	--	146	1,181	50
December		1,001	664	76	--	300	1,441	47
Average		885	553	(s)	--	186	1,253	--
1988		January*	^R 1,009	^R 737	^R 23	--	190	^R 1,578
	February**	966	683	76	--	^E 204	1,520	44
	2-Mo. Average	988	711	49	--	^E 197	1,550	--
1987	2-Mo. Average	878	641	159	--	212	1,466	--
1986	2-Mo. Average	900	614	124	--	198	1,441	--

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

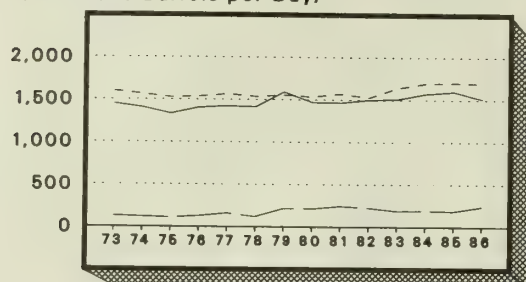
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

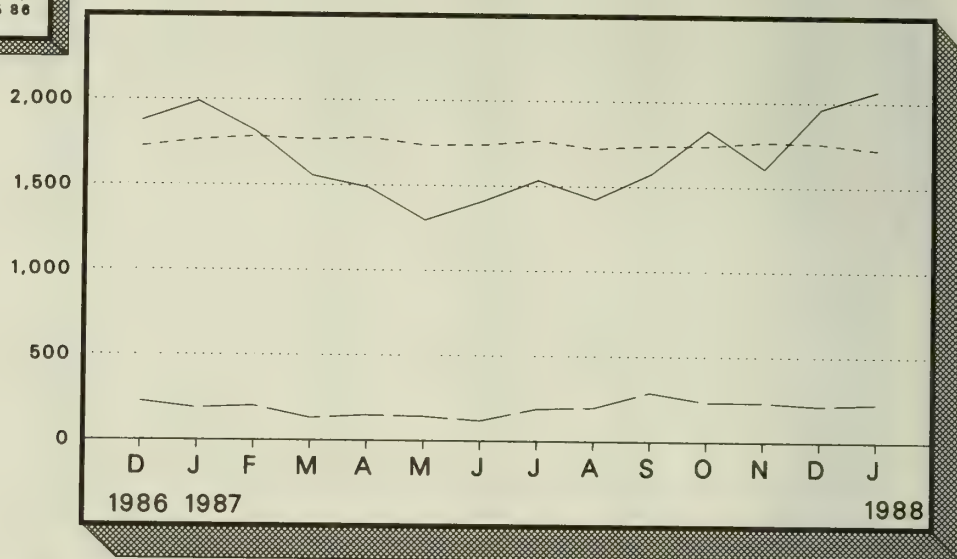
Figure S11. Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels per Day)



Annual

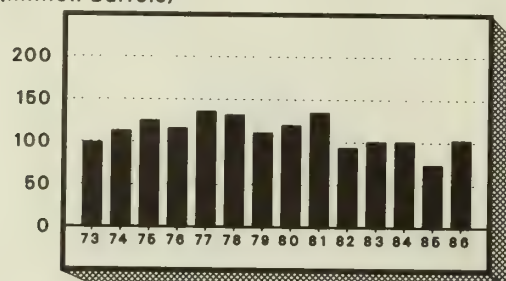
Legend
Products Supplied
Total Production
Imports



Monthly

Figure S12. Liquefied Petroleum Gases Ending Stocks

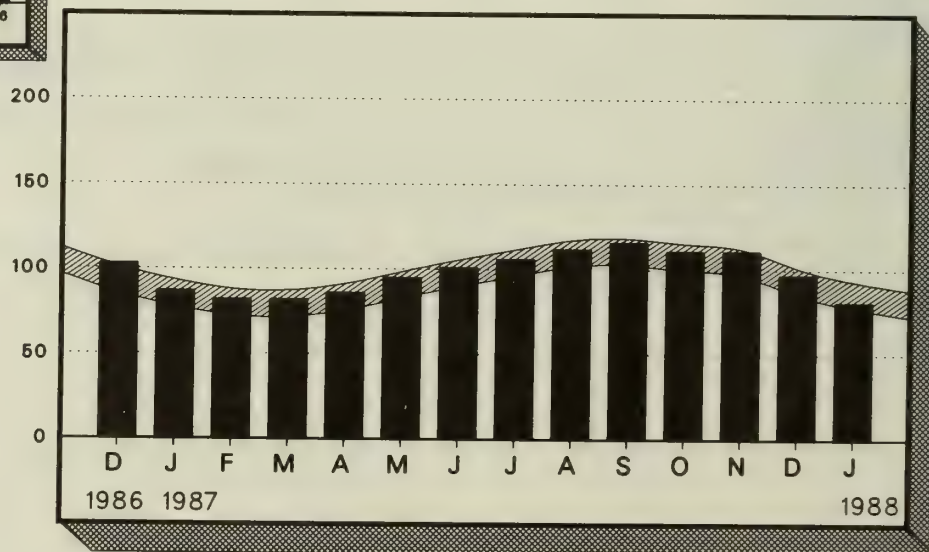
(Million Barrels)



Annual

Legend

▨ Average Stock Range (See Explanatory Note 6.)



Monthly

Table S7. Liquefied Petroleum Gases¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	⁴ 113
1975	Average	1,527	112	⁴ -35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	⁴ 120
1981	Average	1,571	244	⁴ -18	289	42	1,466	135
1982	Average	1,528	226	111	300	65	1,499	⁴ 94
1983	Average	1,642	190	⁴ 4	253	73	1,509	⁴ 101
1984	Average	1,697	195	⁴ 19	291	48	1,572	101
1985	Average	1,704	187	75	304	62	1,599	74
1986	January	1,850	280	80	364	47	1,800	71
	February	1,815	208	108	325	74	1,733	68
	March	1,693	202	-98	250	47	1,500	71
	April	1,642	134	-200	256	33	1,286	77
	May	1,685	196	-336	267	40	1,238	87
	June	1,649	253	-490	228	25	1,158	102
	July	1,684	303	-450	199	50	1,287	116
	August	1,619	271	-332	243	53	1,262	126
	September	1,631	282	-142	288	27	1,456	131
	October	1,625	234	249	332	26	1,750	123
	November	1,724	310	254	417	53	1,817	115
	December	1,725	227	411	456	33	1,875	103
	Average	1,695	242	-80	302	42	1,512	--
1987	January	1,764	188	493	419	38	1,988	87
	February	1,784	201	206	341	36	1,815	82
	March	1,768	132	-19	282	42	1,556	82
	April	1,781	149	-139	276	30	1,486	86
	May	1,736	142	-286	270	27	1,296	95
	June	1,741	119	-182	255	17	1,407	101
	July	1,767	190	-155	244	24	1,534	106
	August	1,722	198	-214	251	31	1,424	112
	September	1,741	288	-134	266	52	1,576	116
	October	1,741	233	171	294	19	1,832	111
	November	1,766	233	1	357	35	1,609	111
	December	1,759	214	442	395	56	1,963	97
	Average	1,756	190	15	304	34	1,623	--
1988	January*	1,723	226	529	366	44	2,069	81

¹ Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

* See Explanatory Note 9.5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,418	277	⁴ 4	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	⁴ 253
1983	Average	3,460	411	⁴ 6	712	242	2,923	⁴ 256
1984	Average	3,632	565	⁴ 23	791	245	3,183	240
1985	Average	3,721	588	-17	886	240	3,166	246
1986	January	3,902	541	⁵ -172	967	311	2,993	252
	February	3,868	393	-209	747	270	3,035	⁵ 258
	March	3,754	454	⁵ 21	854	208	3,167	257
	April	3,788	638	-100	760	369	3,196	260
	May	4,055	659	-114	810	298	3,492	⁵ 264
	June	4,209	687	⁵ -70	853	263	3,710	266
	July	4,145	589	⁵ 119	1,064	357	3,432	262
	August	4,223	572	335	1,061	301	3,768	⁵ 252
	September	4,225	571	⁵ 35	846	278	3,708	⁵ 251
	October	3,969	575	⁵ -112	666	375	3,391	254
	November	3,904	559	⁵ 36	940	342	3,217	253
	December	3,920	490	⁵ 90	1,069	325	3,105	250
	Average	3,997	561	-20	888	308	3,353	--
1987	January	3,835	428	-152	665	283	3,164	256
	February	3,773	608	-354	385	320	3,322	266
	March	3,772	599	-146	717	281	3,225	270
	April	3,948	478	110	885	254	3,397	267
	May	4,054	486	171	918	320	3,473	262
	June	4,195	671	197	898	323	3,842	256
	July	4,354	493	110	835	256	3,866	253
	August	4,336	580	-152	697	238	3,828	257
	September	4,346	565	-16	909	353	3,632	258
	October	4,219	597	19	969	272	3,594	257
	November	3,999	533	-40	993	305	3,195	258
	December	4,053	584	266	1,090	330	3,484	250
	Average	4,076	551	3	833	294	3,503	--
1988	January*	3,988	639	-143	785	354	3,345	254

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁵ Ending stocks and stock withdrawal for 1986 are slightly different from those published in the 1986 *Petroleum Supply Annual* (PSA)-- Volume 1. PSA statistics inadvertently omitted stocks of other hydrocarbons and alcohol.

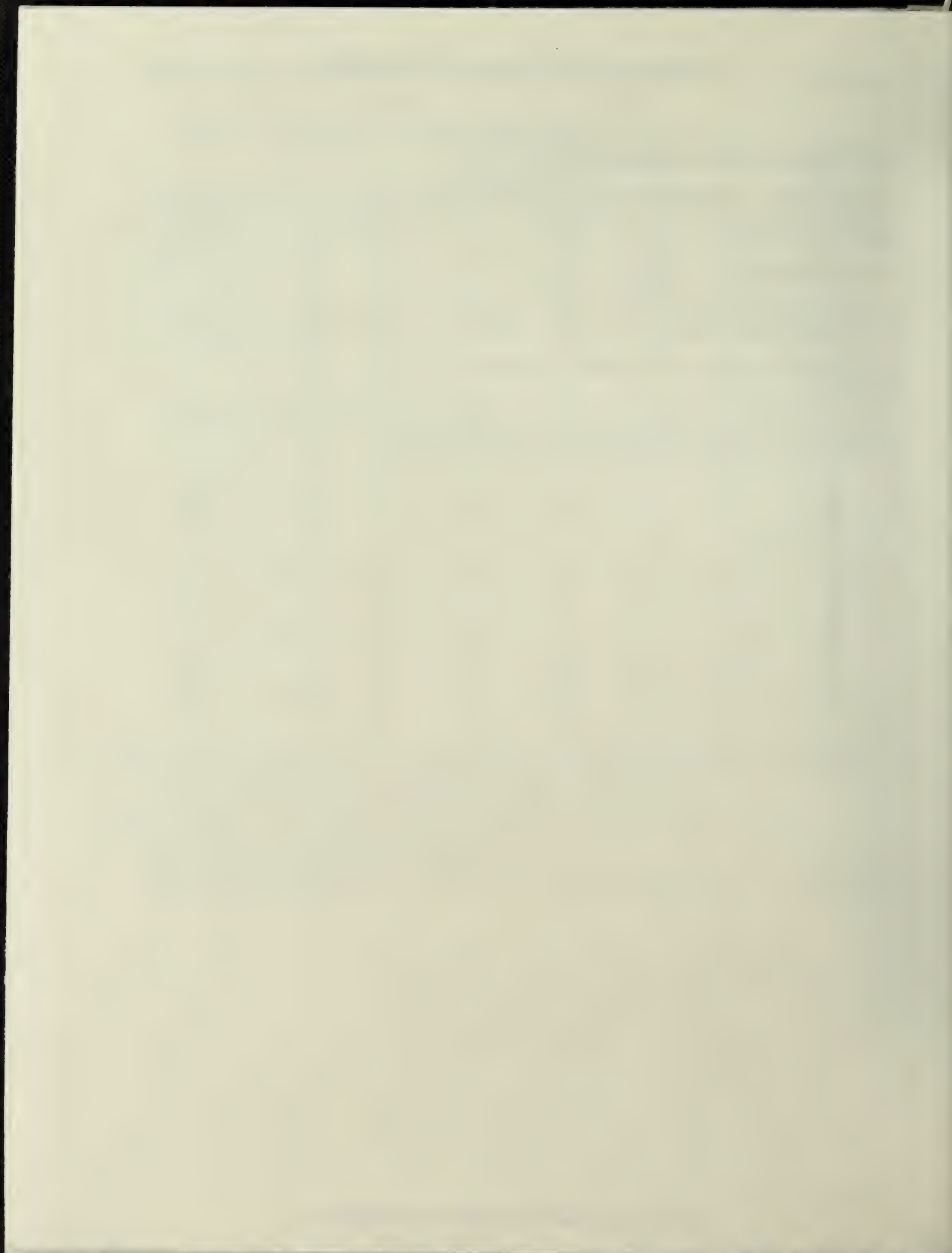
* See Explanatory Note 9.6.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1986: EIA, *Petroleum Supply Annual*.
4. January 1987 through January 1988: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6.)
5. February 1988: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 1.1.)
6. January 1987 through February 1988: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey. (See Explanatory Note 3.)



Detailed Statistics

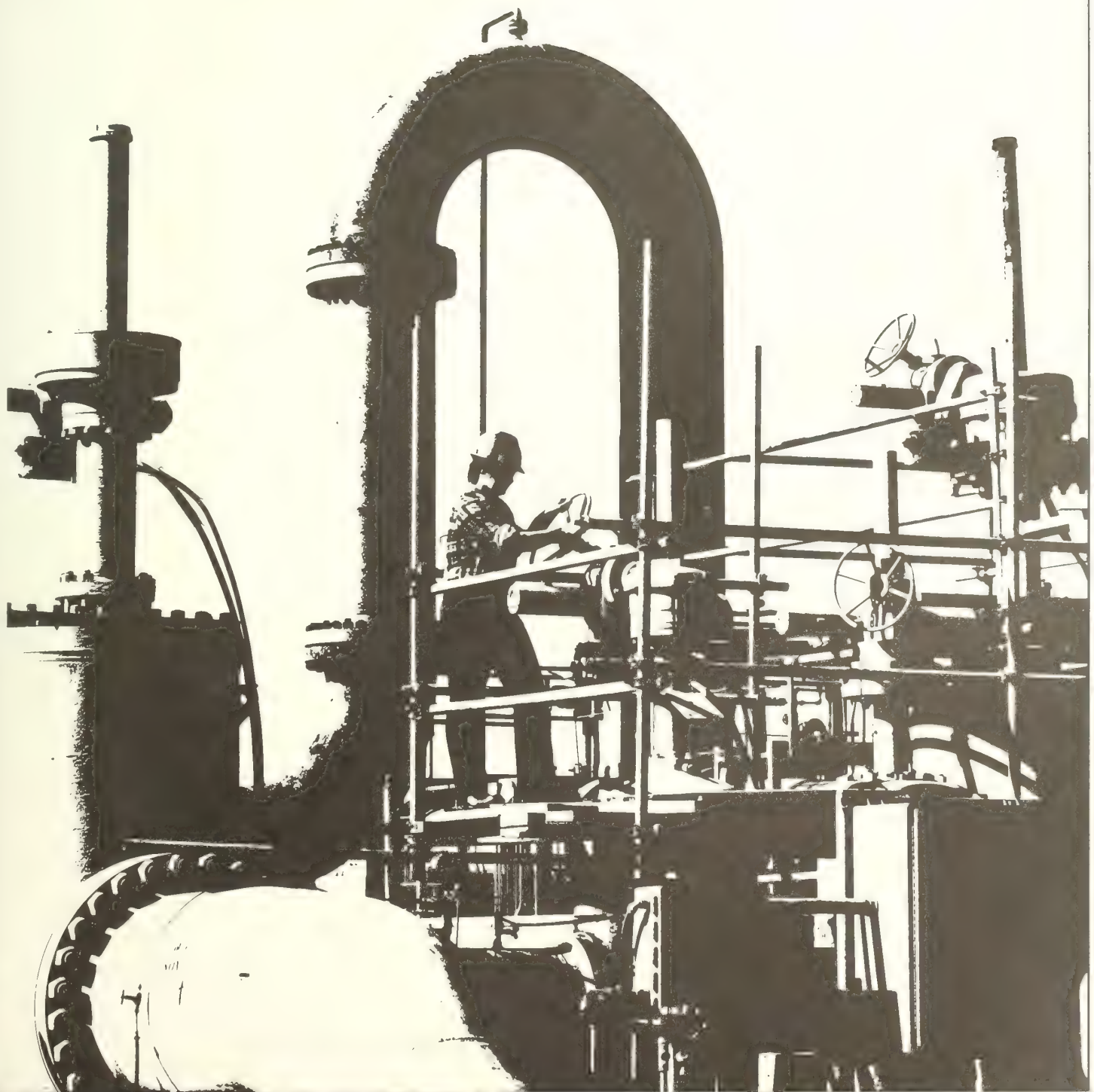




Table 1. U.S. Petroleum Balance, January 1988

		Current Month	
		Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)			
Field Production			
(1)	Alaska	E 61,969	E 1,999
(2)	Lower 48 States	E 193,613	E 6,246
(3)	Total U.S.	E 255,582	E 8,245
Net Imports			
(4)	Imports (Gross Excluding SPR)	141,119	4,552
(5)	SPR Imports	2,071	67
(6)	Exports	6,578	212
(7)	Imports (Net Including SPR)	136,612	4,407
Other Sources			
(8)	SPR Withdrawal (+) or Addition (-)	-2,072	-67
(9)	Other Stock Withdrawal (+) or Addition (-)	3,810	123
(10)	Product Supplied and Losses	-1,119	-36
(11)	Unaccounted for ¹	9,398	303
(12)	Total Other Sources	10,017	323
(13)	Crude Input to Refineries	402,211	12,975
(13) = (3) + (7) + (12)			
Natural Gas Plant Liquids (NGPL)			
(14)	Field Production	48,648	1,569
(15)	Net Imports ²	267	9
(16)	Stock Withdrawal (+) or Addition (-) ²	-100	-3
(17)	Total NGPL Supply	48,815	1,575
Other Liquids			
Unfinished Oils and Gasoline Blending Components, Total			
(18)	Stock Withdrawal (+) or Addition (-)	-4,336	-140
(19)	Imports	12,778	412
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	1,853	60
(21)	Refinery Processing Gain ¹	21,612	697
(22)	Crude Oil Product Supplied	1,117	36
(23)	Total Other Liquids	33,024	1,065
(23) = (18) through (22)			
(24)	Total Production of Products ³	484,050	15,615
(24) = (13) + (17) + (23)			
Net Imports of Refined Products ³			
(25)	Imports (Gross)	57,597	1,858
(26)	Exports	20,974	677
(27)	Imports (Net)	36,623	1,181
(28)	Total New Supply of Products	520,674	16,796
(28) = (24) + (27)			
(29)	Refined Products Stock Withdrawal (+) or Addition (-) ³	13,278	428
(30)	Total Petroleum Products Supplied for Domestic Use	533,952	17,224
(30) = (28) + (29)			
(31)	Finished Motor Gasoline	207,038	6,679
(32)	Distillate Fuel Oil	109,025	3,517
(33)	Residual Fuel Oil	48,933	1,578
(34)	Liquefied Petroleum Gases	64,132	2,069
(35)	Other ⁴	103,706	3,345
(36)	Crude Oil	1,117	36
(37)	Total Product Supplied	533,952	17,224
(37) = (31) through (36)			
Ending Stocks, All Oils			
(38)	Crude Oil and Lease Condensate (Excluding SPR)	345,479	--
(39)	Strategic Petroleum Reserve (SPR)	542,720	--
(40)	Unfinished Oils	95,338	--
(41)	Gasoline Blending Components ⁵	40,267	--
(42)	Pentanes Plus	7,131	--
(43)	Finished Refined Products ³	566,336	--
(44)	Total Stocks	1,597,271	--

¹ A balancing item.² Includes products in the pentanes plus category only.³ For products included see Explanatory Note 9.7.⁴ Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.⁵ Includes other hydrocarbons and alcohol.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 255,582	0	143,190	1,738	9,398	2	402,211	6,578	1,117
Natural Gas Liquids and LRGs	48,518	14,043	7,340	16,311	0	0	15,977	1,442	68,793
Pentanes Plus	9,135	0	330	-100	0	0	4,642	63	4,660
Liquefied Petroleum Gases	39,383	14,043	7,010	16,411	0	0	11,335	1,379	64,132
Ethane	13,532	163	10	2,335	0	0	40	126	15,874
Propane	15,952	10,631	3,903	11,432	0	0	242	892	19,924
Normal Butane	5,349	3,023	1,865	2,486	0	0	7,028	299	40,783
Isobutane	4,550	226	1,232	158	0	0	4,025	63	36,417
Other Liquids	1,853	0	12,778	-4,336	0	0	19,695	0	-9,400
Other Hydrocarbons and Alcohol	1,853	0	0	-194	0	0	1,659	0	0
Unfinished Oils	0	0	11,754	-2,153	0	0	15,465	0	-5,864
Motor Gasoline Blending Components	0	0	1,024	-1,990	0	0	2,570	0	-3,536
Aviation Gasoline Blending Components	0	0	0	1	0	0	1	0	255
Finished Petroleum Products	130	445,452	50,588	-3,133	0	0	0	19,595	473,442
Finished Motor Gasoline	10	208,406	10,053	-11,184	0	0	0	247	207,038
Finished Leaded Motor Gasoline	9	40,822	227	-1,055	0	0	0	130	39,873
Finished Unleaded Motor Gasoline	1	167,584	9,826	-10,129	0	0	0	117	167,165
Finished Aviation Gasoline	0	639	2	79	0	0	0	0	720
Naphtha-Type Jet Fuel	0	5,718	79	-410	0	0	0	11	5,376
Kerosene-Type Jet Fuel	0	38,153	2,469	4,059	0	0	0	2,524	42,156
Kerosene	0	3,211	990	1,265	0	0	0	10	5,456
Distillate Fuel Oil	44	93,193	11,002	7,327	0	0	0	2,541	109,025
Residual Fuel Oil	0	31,285	22,838	709	0	0	0	5,899	48,933
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,628	1,607	-124	0	0	0	97	5,014
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,163	0	332	0	0	0	894	6,601
Special Naphthas	0	1,643	435	-39	0	0	0	64	1,269
Lubricants	0	5,189	346	-759	0	0	0	560	3,692
Waxes	0	488	45	-38	0	0	0	36	459
Petroleum Coke	0	17,321	63	-556	0	0	0	6,657	10,171
Asphalt and Road Oil	0	7,151	600	-3,927	0	0	0	4	7,316
Still Gas	0	20,210	0	0	0	0	0	0	22,726
Miscellaneous Products	76	2,054	59	133	0	0	0	0	0
Total	306,083	459,495	213,895	10,580	9,398	2	437,883	27,615	533,952
									1,597,271

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 255,582	0	143,190	1,738	9,398	2	402,211	6,578	1,117	888,199
Natural Gas Liquids and LRGs :	48,518	14,043	7,340	16,311	0	0	15,977	1,442	68,793	87,872
Pentanes Plus	9,135	0	330	-100	0	0	4,642	63	4,660	7,131
Liquefied Petroleum Gases	39,383	14,043	7,010	16,411	0	0	11,335	1,379	64,132	80,741
Ethane	13,532	163	10	2,335	0	0	40	126	15,874	19,924
Propane	15,952	10,631	3,903	11,432	0	0	242	892	40,783	36,417
Normal Butane	5,349	3,023	1,865	2,486	0	0	7,028	299	5,397	14,062
Isobutane	4,550	226	1,232	158	0	0	4,025	63	2,078	10,338
Other Liquids	1,853	0	12,778	-4,336	0	0	19,695	0	-9,400	135,605
Other Hydrocarbons and Alcohol	1,853	0	0	-194	0	0	1,659	0	0	626
Unfinished Oils	0	0	11,754	-2,153	0	0	15,465	0	-5,864	95,338
Motor Gasoline Blending Components	0	0	1,024	-1,990	0	0	2,570	0	-3,536	39,386
Aviation Gasoline Blending Components	0	0	0	1	0	0	1	0	0	255
Finished Petroleum Products	130	445,452	50,588	-3,133	0	0	0	19,595	473,442	485,595
Finished Motor Gasoline	10	208,406	10,053	-11,184	0	0	0	247	207,038	200,078
Finished Leaded Motor Gasoline	9	40,822	227	-1,055	0	0	0	130	39,873	54,250
Finished Unleaded Motor Gasoline	1	167,584	9,826	-10,129	0	0	0	117	167,165	145,828
Finished Aviation Gasoline	0	639	2	79	0	0	0	0	720	2,252
Naphtha-Type Jet Fuel	0	5,718	79	-410	0	0	0	11	5,376	8,366
Kerosene-Type Jet Fuel	0	38,153	2,469	4,059	0	0	0	2,524	42,156	37,912
Kerosene	0	3,211	990	1,265	0	0	0	10	5,456	7,182
Distillate Fuel Oil	44	93,193	11,002	7,327	0	0	0	2,541	109,025	127,155
Residual Fuel Oil	0	31,285	22,838	709	0	0	0	5,899	48,933	46,628
Naphtha < 400 Deg. for Petro. Feed Use	0	3,628	1,607	-124	0	0	0	97	5,014	2,460
Other Oils > 400 Deg. for Petro. Feed Use	0	7,163	0	332	0	0	0	894	6,601	1,269
Special Naphthas	0	1,643	435	-39	0	0	0	64	1,975	3,692
Lubricants	0	5,189	346	-759	0	0	0	560	4,216	14,076
Waxes	0	488	45	-38	0	0	0	36	459	821
Petroleum Coke	0	17,321	63	-556	0	0	0	6,657	10,171	7,316
Asphalt and Road Oil	0	7,151	600	-3,927	0	0	0	4	3,820	22,726
Still Gas	0	20,210	0	0	0	0	0	0	20,210	0
Miscellaneous Products	76	2,054	59	133	0	0	0	50	2,272	3,662
Total	306,083	459,495	213,895	10,580	9,398	2	437,883	27,615	533,952	1,597,271

¹ Unaccounted for crude oil is a balancing item.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)									
E 8,245	0	4,619	56	303	(s)	12,975	212	36	
Natural Gas Liquids and LRGs									
1,565	453	237	526	0	0	515	47	2,219	
295	0	11	-3	0	0	150	2	150	
1,270	453	226	529	0	0	366	44	2,069	
437	5	(s)	75	0	0	1	4	512	
515	343	126	369	0	0	8	29	1,316	
173	98	60	80	0	0	227	10	174	
147	7	40	5	0	0	130	2	67	
Other Liquids									
60	0	412	-140	0	0	635	0	-303	
60	0	0	-6	0	0	54	0	0	
0	0	379	-69	0	0	499	0	-189	
0	0	33	-64	0	0	83	0	-114	
0	0	0	(s)	0	0	(s)	0	0	
Finished Petroleum Products									
4	14,369	1,632	-101	0	0	0	632	15,272	
(s)	6,723	324	-361	0	0	0	8	6,679	
(s)	1,317	7	-34	0	0	0	4	1,286	
(s)	5,406	317	-327	0	0	0	4	5,392	
0	21	(s)	3	0	0	0	0	23	
0	184	3	-13	0	0	0	(s)	173	
0	1,231	80	131	0	0	0	81	1,360	
0	104	32	41	0	0	0	(s)	176	
1	3,006	355	236	0	0	0	82	3,517	
0	1,009	737	23	0	0	0	190	1,578	
0	117	52	-4	0	0	0	3	162	
0	231	0	11	0	0	0	29	213	
0	53	14	-1	0	0	0	2	64	
0	167	11	-24	0	0	0	18	136	
0	16	1	-1	0	0	0	1	15	
0	559	2	-18	0	0	0	215	328	
0	231	19	-127	0	0	0	(s)	123	
0	652	0	0	0	0	0	0	652	
2	66	2	4	0	0	0	2	73	
Total									
9,874	14,822	6,900	341	303	(s)	14,125	891	17,224	

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels per Day)

(Thousands Barrels per Day)									
Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)									
	8,245	0	4,619	56	303	(5)	12,975	212	36
Natural Gas Liquids and LRGs									
Pentanes Plus	1,565	453	237	526	0	0	515	47	2,219
	295	0	11	-3	0	0	150	2	150
Liquefied Petroleum Gases	1,270	453	226	529	0	0	366	44	2,069
Ethane	437	5	(5)	75	0	0	1	4	512
Propane	515	343	126	369	0	0	8	29	1,316
Normal Butane	173	98	60	80	0	0	227	10	174
Isobutane	147	7	40	5	0	0	130	2	67
Other Liquids									
Other Hydrocarbons and Alcohol	60	0	412	-140	0	0	635	0	-303
Unfinished Oils	60	0	0	-6	0	0	54	0	0
Motor Gasoline Blending Components	0	0	379	-69	0	0	499	0	-189
Aviation Gasoline Blending Components	0	0	33	-64	0	0	83	0	-114
	0	0	0	(5)	0	0	(5)	0	0
Finished Petroleum Products									
Finished Motor Gasoline	4	14,369	1,632	-101	0	0	0	632	15,272
Finished Leaded Motor Gasoline	(5)	6,723	324	-361	0	0	0	8	6,679
Finished Unleaded Motor Gasoline	(5)	1,317	7	-34	0	0	0	4	1,286
Finished Aviation Gasoline	(5)	5,406	317	-327	0	0	0	4	5,392
Naphtha-Type Jet Fuel	0	21	(5)	3	0	0	0	0	23
Kerosene-Type Jet Fuel	0	184	3	-13	0	0	0	(5)	173
Kerosene	0	1,231	80	131	0	0	0	81	1,360
Distillate Fuel Oil	0	104	32	41	0	0	0	(5)	176
Residual Fuel Oil	1	3,006	355	236	0	0	0	82	3,517
Naphtha < 400 Deg for Petro Feed Use	0	1,009	737	23	0	0	0	190	1,578
Other Oils > 400 Deg for Petro Feed Use	0	117	52	-4	0	0	0	3	162
Special Naphthas	0	231	0	11	0	0	0	29	213
Lubricants	0	53	14	-1	0	0	0	2	64
Waxes	0	167	11	-24	0	0	0	18	136
Petroleum Coke	0	16	1	-1	0	0	0	1	15
Asphalt and Road Oil	0	559	2	-18	0	0	0	215	328
Still Gas	0	231	19	-127	0	0	0	(5)	123
Miscellaneous Products	0	652	0	0	0	0	0	0	652
	2	66	2	4	0	0	0	2	73
Total	9,874	14,822	6,900	341	303	(5)	14,125	891	17,224

¹ Unaccounted for crude oil is a balancing item

(5) Less than 500 barrels per day

F - Estimated

Note: Total may not equal sum of components due to independent rounding
Sources and estimation procedures. See Explanatory Notes 1 and 2

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 1,184	0	34,315	935	2,449	1,846	0	40,729	0	0	14,606
Natural Gas Liquids and LRGs	624	1,687	2,045	2,153	0	4,586	0	261	15	10,819	3,517
Liquefied Petroleum Gases	526	1,687	1,793	2,144	0	4,586	0	243	15	10,478	3,473
Pentananes Plus	98	0	252	9	0	0	0	18	0	341	44
Other Liquids	50	0	4,839	-440	0	270	0	6,189	0	-1,470	17,688
Other Hydrocarbons and Alcohol	50	0	0	-32	0	0	0	18	0	0	52
Unfinished Oils	0	0	3,815	-547	0	172	0	4,837	0	-1,397	12,270
Motor Gasoline Blending Components	0	0	1,024	139	0	98	0	1,334	0	-73	5,366
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	0	47,867	45,383	4,821	0	82,090	0	0	703	179,458	155,142
Finished Motor Gasoline	0	22,465	9,886	-4,735	0	41,617	0	0	8	69,225	62,275
Finished Leaded Motor Gasoline	0	2,773	205	-335	0	6,498	0	0	2	9,139	13,176
Finished Unleaded Motor Gasoline	0	19,692	9,681	-4,400	0	35,119	0	0	7	60,085	49,099
Finished Aviation Gasoline	0	0	0	17	0	156	0	0	0	173	479
Naphtha-Type Jet Fuel	0	428	0	-3	0	525	0	0	1	949	1,564
Kerosene-Type Jet Fuel	0	2,359	990	1,317	0	11,060	0	0	33	15,693	8,974
Kerosene	0	234	502	696	0	1,069	0	0	7	2,494	2,641
Distillate Fuel Oil	0	10,728	10,737	6,161	0	25,332	0	0	18	52,940	47,593
Residual Fuel Oil	0	5,918	22,028	3,467	0	691	0	0	1	32,103	19,638
Naphtha and Other Oils for Petro. Feed. Use	0	183	235	-57	0	61	0	0	42	380	421
Special Naphthas	0	-39	18	27	0	253	0	0	9	250	1,258
Lubricants	0	682	324	-390	0	816	0	0	156	1,276	3,354
Waxes	0	101	26	-15	0	7	0	0	4	115	79
Petroleum Coke	0	1,415	20	-96	0	0	0	0	394	945	616
Asphalt and Road Oil	0	944	561	-1,323	0	474	0	0	(s)	656	5,262
Still Gas	0	2,034	0	0	0	0	0	0	0	2,034	0
Miscellaneous Products	0	415	56	-245	0	29	0	0	30	225	988
Total	1,858	49,554	86,582	7,469	2,449	88,792	0	47,179	718	188,806	190,953

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

Commodity	Supply				Disposition						
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 25,801	0	15,535	2,731	-3,919	45,321	0	85,256	213	0	70,575
Natural Gas Liquids and LRGs	8,252	2,592	3,565	4,339	0	929	0	4,370	538	14,769	28,188
Liquefied Petroleum Gases	6,853	2,592	3,535	4,793	0	649	0	3,380	475	14,566	24,943
Pentanes Plus	1,399	0	30	-454	0	280	0	990	63	202	3,245
Other Liquids	206	0	0	-415	0	-17	0	1,672	0	-1,898	22,324
Other Hydrocarbons and Alcohol	206	0	0	12	0	0	0	218	0	0	174
Unfinished Oils	0	0	0	-498	0	0	0	-83	0	-415	14,378
Motor Gasoline Blending Components	0	0	0	68	0	-17	0	1,534	0	-1,483	7,619
Aviation Gasoline Blending Components	0	0	0	3	0	0	0	3	0	0	153
Finished Petroleum Products	9	92,504	1,703	-3,305	0	22,785	0	0	183	113,512	120,047
Finished Motor Gasoline	0	48,997	69	-2,132	0	15,455	0	0	25	62,364	55,629
Finished Leaded Motor Gasoline	0	8,818	0	612	0	3,268	0	0	6	12,692	17,223
Finished Unleaded Motor Gasoline	0	40,179	69	-2,744	0	12,187	0	0	19	49,672	38,406
Finished Aviation Gasoline	0	115	0	95	0	45	0	0	0	255	600
Naphtha-Type Jet Fuel	0	530	79	-546	0	-54	0	0	0	9	1,873
Kerosene-Type Jet Fuel	0	5,549	1,250	641	0	4,138	0	0	0	11,578	8,221
Kerosene	0	841	0	695	0	-52	0	0	3	1,481	2,012
Distillate Fuel Oil	0	20,845	145	326	0	3,294	0	0	46	24,564	34,316
Residual Fuel Oil	0	2,437	78	-131	0	-316	0	0	0	2,068	3,169
Naphtha and Other Oils for Petro Feed Use	0	1,581	22	-38	0	-67	0	0	25	1,473	454
Special Naphthas	0	420	29	-24	0	74	0	0	6	493	669
Lubricants	0	766	11	-168	0	253	0	0	45	817	2,293
Waxes	0	38	15	-4	0	0	0	0	2	47	103
Petroleum Coke	0	3,644	0	-447	0	0	0	0	28	3,169	1,322
Asphalt and Road Oil	0	2,518	2	-1,671	0	15	0	0	1	863	8,976
Still Gas	0	3,931	0	0	0	0	0	0	0	3,931	0
Miscellaneous Products	9	292	3	99	0	0	0	0	3	400	410
Total	34,268	95,096	20,802	3,350	-3,919	69,018	0	91,298	934	126,383	241,134

¹ Unaccounted for crude oil is a balancing item.

(S) = Less than 500 barrels

E = Estimated

Note: Total may not equal sum of components due to independent rounding

Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 115,345	0	88,118	-6,339	11,415	-24,082	0	184,457	0	0	704,554
Natural Gas Liquids and LRGs	32,980	8,028	706	8,899	0	-4,100	0	9,559	731	36,223	53,697
Liquefied Petroleum Gases	27,604	8,028	705	8,547	0	-3,998	0	6,234	731	33,921	50,060
Pentananes Plus	5,376	0	1	352	0	-102	0	3,325	0	2,302	3,637
Other Liquids	1,075	0	7,685	-1,511	0	-362	0	11,567	0	-4,680	59,306
Other Hydrocarbons and Alcohol	1,075	0	0	-81	0	0	0	994	0	0	274
Unfinished Oils	0	0	7,685	-166	0	-281	0	10,251	0	-3,013	42,776
Motor Gasoline Blending Components	0	0	0	-1,283	0	-81	0	303	0	-1,667	16,206
Aviation Gasoline Blending Components	0	0	0	19	0	0	0	19	0	0	50
Finished Petroleum Products	118	208,161	2,779	-3,711	0	-107,529	0	0	9,800	90,017	139,234
Finished Motor Gasoline	10	94,204	0	-1,423	0	-58,516	0	0	185	34,090	52,389
Finished Leaded Motor Gasoline	9	17,906	0	-513	0	-10,063	0	0	107	7,232	13,289
Finished Unleaded Motor Gasoline	1	76,298	0	-910	0	-48,453	0	0	78	26,858	39,100
Finished Aviation Gasoline	0	350	0	21	0	-210	0	0	0	161	635
Naphtha-Type Jet Fuel	0	2,824	0	-41	0	-670	0	0	11	2,102	2,874
Kerosene-Type Jet Fuel	0	19,155	104	1,139	0	-16,039	0	0	1,932	2,427	13,578
Kerosene	0	1,876	488	-81	0	-1,017	0	0	(s)	1,266	2,133
Distillate Fuel Oil	44	45,660	2	-35	0	-28,830	0	0	1,143	15,698	31,552
Residual Fuel Oil	0	10,453	402	-2,292	0	-375	0	0	1,334	6,854	14,844
Naphtha and Other Oils for Petro. Feed. Use	0	8,493	1,350	233	0	6	0	0	664	9,418	2,602
Special Naphthas	0	1,168	379	-59	0	-327	0	0	44	1,117	1,594
Lubricants	0	3,102	2	-267	0	-1,026	0	0	235	1,576	6,823
Waxes	0	287	0	-34	0	-7	0	0	23	223	463
Petroleum Coke	0	7,891	20	-230	0	0	0	0	4,218	3,463	3,657
Asphalt and Road Oil	0	1,964	32	-431	0	-489	0	0	(s)	1,076	4,226
Still Gas	0	9,650	0	0	0	0	0	0	0	9,650	0
Miscellaneous Products	64	1,084	0	-211	0	-29	0	0	11	897	1,864
Total	149,518	216,189	99,288	-2,662	11,415	-136,073	0	205,583	10,531	121,561	956,791

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

(Thousands Barrels)		Supply					Disposition				
Commodity	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Disposition			Ending Stocks
								Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)											
	E 17,183	0	1,619	-484	1,581	-6,839	0	13,060	0	0	13,014
Natural Gas Liquids and LRGs											
Liquefied Petroleum Gases	3,614	221	722	17	0	-1,415	0	759	47	2,353	1,070
Pentanes Plus	2,910	221	675	18	0	-1,237	0	650	47	1,890	914
	704	0	47	-1	0	-178	0	109	0	463	156
Other Liquids											
	22	0	0	-289	0	0	0	-319	0	52	4,349
Other Hydrocarbons and Alcohol	22	0	0	5	0	0	0	27	0	0	9
Unfinished Oils	0	0	0	23	0	0	0	-144	0	167	2,299
Motor Gasoline Blending Components	0	0	0	-317	0	0	0	-202	0	-115	2,041
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products											
Finished Motor Gasoline	3	13,635	95	-1,008	0	-750	0	0	6	11,969	12,664
	0	6,971	40	-282	0	-560	0	0	(S)	6,169	5,337
Finished Leaded Motor Gasoline	0	2,709	2	-197	0	-452	0	0	(S)	2,062	2,391
Finished Unleaded Motor Gasoline	0	4,262	38	-85	0	-108	0	0	(S)	4,107	2,946
Finished Aviation Gasoline	0	17	0	-5	0	9	0	0	0	21	59
Naphtha-Type Jet Fuel	0	368	0	17	0	-240	0	0	0	145	413
Kerosene-Type Jet Fuel	0	902	0	-20	0	543	0	0	0	1,425	856
Kerosene	0	47	0	-16	0	0	0	0	0	31	108
Distillate Fuel Oil	0	3,293	55	-176	0	-502	0	0	0	2,670	3,274
Residual Fuel Oil	0	361	0	54	0	0	0	0	0	415	333
Naphtha and Other Oils for Petro. Feed Use	0	-1	0	3	0	0	0	0	1	1	30
Special Naphthas	0	2	0	-2	0	0	0	0	0	0	9
Lubricants	0	23	0	3	0	0	0	0	3	23	107
Waxes	0	6	0	14	0	0	0	0	0	20	73
Petroleum Coke	0	364	0	-19	0	0	0	0	(S)	345	50
Asphalt and Road Oil	0	658	0	-576	0	0	0	0	1	81	1,991
Still Gas	0	572	0	0	0	0	0	0	0	572	0
Miscellaneous Products	3	52	0	-3	0	0	0	0	(S)	52	24
Total	20,822	13,856	2,436	-1,764	1,581	-9,004	0	13,500	53	14,374	31,097

¹ Unaccounted for crude oil is a balancing item.

(S) - Less than 500 barrels.

E - Estimated

Note: Total may not equal sum of components due to independent rounding
Sources and estimation procedures. See Explanatory Notes 1 and 2

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, January 1988
(Thousand Barrels)

Commodity	Supply				Net Receipts	Disposition			Ending Stocks		
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)		Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 96,069	0	3,603	4,895	-2,128	-16,246	2	78,709	6,365	1,117	85,450
Natural Gas Liquids and LRGs	3,048	1,515	301	903	0	0	0	1,028	110	4,629	1,400
Liquefied Petroleum Gases	1,490	1,515	301	909	0	0	0	828	110	3,277	1,351
Pentanes Plus	1,558	0	0	-6	0	0	0	200	0	1,352	49
Other Liquids	500	0	254	-1,681	0	109	0	586	0	-1,404	31,938
Other Hydrocarbons and Alcohol	500	0	0	-98	0	0	0	402	0	0	117
Unfinished Oils	0	0	254	-965	0	109	0	604	0	-1,206	23,615
Motor Gasoline Blending Components	0	0	0	-597	0	0	0	-399	0	-198	8,154
Aviation Gasoline Blending Components	0	0	0	-21	0	0	0	-21	0	0	52
Finished Petroleum Products	0	83,285	629	70	0	3,404	0	0	8,902	78,485	58,508
Finished Motor Gasoline	0	35,769	58	-2,612	0	2,004	0	0	28	35,191	24,448
Finished Leaded Motor Gasoline	0	8,616	20	-622	0	749	0	0	15	8,748	8,171
Finished Unleaded Motor Gasoline	0	27,153	38	-1,990	0	1,255	0	0	13	26,443	16,277
Finished Aviation Gasoline	0	157	2	-49	0	0	0	0	0	110	479
Naphtha-Type Jet Fuel	0	1,568	0	163	0	439	0	0	0	2,170	1,642
Kerosene-Type Jet Fuel	0	10,188	126	982	0	298	0	0	560	11,034	6,283
Kerosene	0	213	0	-29	0	0	0	0	1	183	288
Distillate Fuel Oil	0	12,667	63	1,051	0	706	0	0	1,335	13,152	10,420
Residual Fuel Oil	0	12,116	330	-389	0	0	0	0	4,563	7,494	8,644
Naphtha and Other Oils for Petro. Feed. Use	0	535	0	67	0	0	0	0	259	343	222
Special Naphthas	0	92	9	19	0	0	0	0	5	115	162
Lubricants	0	616	9	63	0	-43	0	0	120	525	1,499
Waxes	0	56	4	1	0	0	0	0	7	54	103
Petroleum Coke	0	4,007	23	236	0	0	0	0	2,018	2,248	1,671
Asphalt and Road Oil	0	1,067	5	74	0	0	0	0	1	1,145	2,271
Still Gas	0	4,023	0	0	0	0	0	0	0	4,023	0
Miscellaneous Products	0	211	0	493	0	0	0	0	6	698	376
Total	99,617	84,800	4,787	4,187	-2,128	-12,733	2	80,323	15,378	82,827	177,296

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State
(Thousand Barrels)

PAD District and State	November 1987		Year-to-Date	
	Total	Daily Average	Total	Daily Average
PAD District I, Total	E 1,200	E 40	E 14,185	E 42
Florida	706	24	7,646	23
New York	E 51	E 2	E 656	E 2
Pennsylvania	E 246	E 8	E 3,028	E 9
Virginia	E 1	E 0	E 15	E 0
West Virginia	216	7	2,599	8
Adjustment 1	-20	-1	241	1
PAD District II, Total	E 25,125	E 837	E 288,851	E 865
Illinois	1,900	63	21,668	65
Indiana	308	10	3,563	11
Kansas	4,724	157	E 54,098	E 162
Kentucky	447	15	5,231	16
Michigan	E 2,152	E 72	E 21,861	E 65
Missouri	7	(s)	E 73	E 0
Nebraska	491	16	5,573	17
North Dakota	3,290	110	37,927	114
Ohio	E 957	E 32	E 11,364	E 34
Oklahoma	10,784	359	122,177	366
South Dakota	137	5	1,496	4
Tennessee	50	2	524	2
Adjustment 1	-122	-4	3,296	10
PAD District III, Total	E 112,020	E 3,734	E 1,271,303	E 3,806
Alabama	1,712	57	18,861	56
Arkansas	E 1,128	E 38	E 12,686	E 38
Louisiana 2	14,172	472	E 158,867	E 476
Mississippi	2,250	75	25,748	77
New Mexico	5,987	200	65,377	196
Texas 2	62,029	2,068	696,462	2,085
Federal Offshore PAD District III	24,999	833	E 293,779	E 880
Adjustment 1	-258	-9	-476	-1
PAD District IV, Total	16,656	555	E 184,084	E 551
Colorado	2,307	77	25,704	77
Montana	2,063	69	22,815	68
Utah	2,860	95	32,530	97
Wyoming	9,535	318	E 102,726	E 308
Adjustment 1	-109	-4	309	1
PAD District V, Total	94,899	3,163	1,016,363	3,043
Alaska 2	62,040	2,068	652,531	1,954
South Alaska	1,297	43	14,814	44
North Slope	60,743	2,025	637,798	1,910
Adjustment for Alaska 1	0	0	-81	(s)
Arizona	10	(s)	119	(s)
California 2	30,043	1,001	333,765	999
Nevada	258	9	2,852	9
Federal Offshore PAD District V	2,828	94	28,478	85
Adjustment for Arizona, California, and Nevada 1	-280	-9	-1,382	-4
United States Total 2	E 249,900	E 8,330	E 2,774,785	E 8,308

¹ These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

² Includes the following current month offshore production (thousand barrels): Alaska: State - 4,455; California: State - 2,468; Louisiana: State - 2,021; Texas: State - 158; U.S. Total, including Federal offshore - 36,930.

³ Including blending components.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: State Conservation Agencies and the U.S. Minerals Management Service.

Table 12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District, January 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV		United States				
	East Coast	Appalachian #1	Total	Ind., Ill., Ky. *	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.		New Mexico	Total	Rocky Mt.	Dist. V West Coast
Natural Gas Liquids	220	404	624	745	463	7,044	8,252	18,290	2,718	7,211	579	4,182	32,980	3,614	3,048	48,518
Pentanes Plus	44	54	98	140	108	1,151	1,399	3,129	259	1,251	153	584	5,376	704	1,558	9,135
Liquefied Petroleum Gases	176	350	526	605	355	5,893	6,853	15,161	2,459	5,960	426	3,598	27,604	2,910	1,490	39,383
Ethane	39	71	110	136	1	1,459	1,596	6,187	810	2,592	91	1,391	11,071	754	1	13,532
Propane	83	188	271	282	217	2,851	3,350	5,749	1,258	1,966	176	1,395	10,544	1,385	402	15,952
Normal Butane	43	69	112	93	130	1,095	1,318	2,320	-1,099	697	118	531	2,567	545	807	5,349
Isobutane	11	22	33	94	7	488	589	905	1,490	705	41	281	3,422	226	280	4,550
Finished Petroleum Products	0	0	0	1	0	8	9	40	49	4	25	0	118	3	0	130
Finished Motor Gasoline	0	0	0	0	0	0	0	1	9	0	0	0	10	0	0	10
Finished Leaded Motor Gasoline	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	9
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	40	4	0	0	44	0	0	44
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Production	220	404	624	746	463	7,052	8,261	18,330	2,767	7,215	604	4,182	33,098	3,617	3,048	48,648

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, January 1988

(Thousand Barrels, Except Where Noted)																
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Crude Oil (including lease condensate)	37,672	3,057	40,729	57,774	8,612	18,870	85,256	12,938	91,873	72,168	5,445	2,033	184,457	13,060	78,709	402,211
Pentanes Plus	17	1	18	506	77	407	990	885	1,788	417	120	115	3,325	109	200	4,642
Liquefied Petroleum Gases	172	71	243	2,277	332	771	3,380	835	2,399	2,771	143	86	6,234	650	828	11,335
Ethane	0	0	0	0	0	0	0	0	0	40	0	0	40	0	0	40
Propane	0	0	0	69	0	0	69	0	132	30	0	2	164	0	9	242
Normal Butane	101	71	172	1,456	258	383	2,097	545	1,285	1,608	61	44	3,543	547	669	7,028
Isobutane	71	0	71	752	74	388	1,214	290	982	1,093	82	40	2,487	103	150	4,025
Other Liquids																
Other Hydrocarbons and Alcohol	18	0	18	193	2	23	218	0	527	455	0	12	994	27	402	1,659
Unfinished Oil (net)	4,562	275	4,837	-86	38	-35	-83	201	8,498	1,493	63	-4	10,251	-144	604	15,465
Motor Gasoline Blending Components (net)	1,344	-10	1,334	1,470	-32	96	1,534	288	-520	463	60	12	303	-202	-399	2,570
Aviation Gasoline Blending Components (net)	0	0	0	4	0	-1	3	0	0	19	0	0	19	0	-21	1
Total Input to Refineries	43,785	3,394	47,179	62,138	9,029	20,131	91,298	15,147	104,565	77,786	5,831	2,254	205,583	13,500	80,323	437,883
Crude Oil Distillation																
Gross Input (daily average)	1,217	100	1,317	1,869	280	609	2,758	417	3,024	2,380	175	66	6,062	426	2,609	13,172
Operable Capacity (daily average)	1,369	108	1,477	2,235	312	734	3,281	576	3,558	2,974	255	76	7,438	540	3,174	15,911
Operating Ratio (percent) ¹	88.9	92.7	89.2	83.6	89.6	83.0	84.1	72.4	85.0	80.0	68.9	87.1	81.5	78.9	82.2	82.8
Downstream Processing																
Fresh Feed Input (daily average)																
Catalytic Cracking	553	14	567	597	99	199	895	160	1,162	761	29	23	2,135	147	602	4,346
Catalytic Hydrocracking	41	3	44	78	0	5	82	0	130	187	0	0	316	6	405	853
Cokers	76	0	76	151	55	67	272	7	197	337	10	0	550	19	469	1,386
Crude Oil Qualities																
Sulfur Content, Weighted Average (percent)	1.01	48	97	98	2.07	54	99	53	94	1.26	1.37	87	1.05	82	1.10	1.03
API Gravity, Weighted Average	31.94	39.68	32.52	35.54	30.26	37.81	35.51	39.00	34.07	31.22	34.11	39.75	33.38	36.32	25.18	32.21
Operable Capacity (daily average)																
Operating	1,369	108	1,477	2,235	312	734	3,281	576	3,558	2,974	255	76	7,438	540	3,174	15,911
Idle	1,314	108	1,422	2,158	312	704	3,174	517	3,386	2,615	248	76	6,841	526	3,055	15,018
	55	0	55	77	0	30	107	59	172	359	7	0	597	14	120	893
Alaskan Crude Oil Receipts	237	0	237	435	0	0	435	0	5,952	9,445	0	0	15,397	0	43,989	60,058

¹ Represents gross input divided by operable capacity.

(s) = Less than 500 barrels

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures. See Explanatory Notes 1 and 2.

Table 14. Refinery Net Production of Petroleum Products by PAD District, January 1988

(Thousand Barrels)																
Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		PAD District V		
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast	United States
Liquefied Refinery Gases	1,659	28	1,687	1,877	255	460	2,592	240	3,292	4,311	100	85	8,028	221	1,515	14,043
Ethane	-22	0	-22	0	0	0	0	-30	181	-2	0	0	149	0	36	163
Propane	1,411	28	1,439	1,863	227	459	2,549	365	2,834	2,018	79	68	5,364	202	1,077	10,631
Normal Butane	253	0	253	22	17	1	40	-165	261	2,302	21	17	2,436	11	283	3,023
Isobutane	17	0	17	-8	11	0	3	70	16	-7	0	0	79	8	119	226
Finished Motor Gasoline	21,251	1,214	22,465	33,339	4,860	10,798	48,997	8,309	47,282	35,606	1,742	1,265	94,204	6,971	35,769	208,406
Finished Leaded Motor Gasoline	2,517	256	2,773	4,329	1,076	3,413	8,818	2,429	8,202	6,574	267	434	17,906	2,709	8,616	40,822
Finished Unleaded Motor Gasoline	18,734	958	19,692	29,010	3,784	7,385	40,179	5,880	39,080	29,032	1,475	831	76,298	4,262	27,153	167,584
Finished Aviation Gasoline	0	0	0	87	27	1	115	80	198	72	0	0	350	17	157	639
Naphtha-Type Jet Fuel	428	0	428	334	20	176	530	764	711	871	199	279	2,824	368	1,568	5,718
Kerosene-Type Jet Fuel	2,359	0	2,359	3,936	489	1,124	5,549	1,100	8,959	8,964	80	52	19,155	902	10,188	38,153
Kerosene	102	132	234	792	56	-7	841	17	1,136	701	22	0	1,876	47	213	3,211
Distillate Fuel Oil	9,699	1,029	10,728	13,267	2,267	5,311	20,845	2,943	23,483	17,130	1,668	436	45,660	3,293	12,667	93,193
Residual Fuel Oil	5,806	112	5,918	2,033	262	142	2,437	460	5,364	4,314	304	11	10,453	361	12,116	31,285
Naphtha < 400 Deg. for Petro. Feed. Use	176	0	176	716	0	96	812	44	2,296	67	26	-6	2,427	-1	214	3,628
Other Oils > 400 Deg. for Petro. Feed. Use	7	0	7	716	0	53	769	123	4,834	1,109	0	0	6,066	0	321	7,163
Special Naphthas	-52	13	-39	302	0	118	420	86	951	-52	183	0	1,168	2	92	1,643
Lubricants	299	383	682	442	0	324	766	19	2,042	586	455	0	3,102	23	616	5,189
Waxes	0	101	101	7	0	31	38	14	145	72	56	0	287	6	56	488
Petroleum Coke	1,392	23	1,415	2,372	577	695	3,644	319	3,448	3,936	170	18	7,891	364	4,007	17,321
Marketable	366	0	366	1,383	450	455	2,288	33	1,703	2,847	115	0	4,698	176	2,965	10,493
Catalyst	1,026	23	1,049	989	127	240	1,356	286	1,745	1,089	55	18	3,193	188	1,042	6,828
Asphalt and Road Oil	778	166	944	1,584	340	594	2,518	177	489	489	717	92	1,964	658	1,067	7,151
Still Gas	1,873	161	2,034	2,670	331	930	3,931	626	5,651	3,126	172	75	9,650	572	4,023	20,210
Miscellaneous Products	372	43	415	203	41	48	292	68	570	446	0	0	1,084	52	211	2,054
Fuel Use	9	2	11	0	0	0	0	32	0	30	0	0	62	0	8	81
Non-Fuel Use	363	41	404	203	41	48	292	36	570	416	0	0	1,022	52	203	1,973
Total Production	46,149	3,405	49,554	64,677	9,525	20,894	95,096	15,389	110,851	81,748	5,894	2,307	216,189	13,856	84,800	459,495
Processing Gain(-) or Loss(+)	-2,364	-11	-2,375	-2,539	-496	-763	-3,798	-242	-6,286	-3,962	-63	-53	-10,606	-356	-4,477	-21,612

¹ Represents the arithmetic difference between input and output.

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, January 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	34,315	27,297	76,356	1,619	3,603	143,190
Natural Gas Liquids	2,045	3,565	706	722	301	7,340
Pentanes Plus	252	30	1	47	0	330
Liquefied Petroleum Gases	1,793	3,535	705	675	301	7,010
Ethane	2	0	0	0	8	10
Propane	692	2,468	308	381	54	3,903
Normal Butane	660	640	245	177	143	1,865
Isobutane	440	427	152	118	96	1,232
Other Liquids ¹	4,839	0	7,685	0	254	12,778
Unfinished Oils ¹	3,815	0	7,685	0	254	11,754
Naphthas and Lighter	24	0	1,200	0	254	1,478
Kerosene and Light Gas Oils	0	0	0	0	0	0
Heavy Gas Oils	3,430	0	1,394	0	0	4,824
Residuum	361	0	5,091	0	0	5,452
Motor Gasoline Blending Components	1,024	0	0	0	0	1,024
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	45,383	1,703	2,779	95	629	50,588
Finished Motor Gasoline	9,886	69	0	40	58	10,053
Finished Leaded Motor Gasoline	205	0	0	2	20	227
Finished Unleaded Motor Gasoline	9,681	69	0	38	38	9,826
Finished Aviation Gasoline	0	0	0	0	2	2
Naphtha-Type Jet Fuel	0	79	0	0	0	79
Kerosene-Type Jet Fuel	990	1,250	104	0	126	2,469
Bonded Aircraft Fuel	492	1,250	104	0	100	1,945
Other	498	0	0	0	26	524
Kerosene	502	0	488	0	0	990
Distillate Fuel Oil	10,737	145	2	55	63	11,002
Bonded Ships Bunkers	0	0	0	0	0	0
Other	10,737	145	2	55	63	11,002
Residual Fuel Oil	22,028	78	402	0	330	22,838
Bonded Ships Bunkers	0	0	0	0	0	0
Other	22,028	78	402	0	330	22,838
Naphtha < 400 Deg. for Petro. Feed. Use	235	22	1,350	0	0	1,607
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	18	29	379	0	9	435
Lubricants	324	11	2	0	9	346
Waxes	26	15	0	0	4	45
Petroleum Coke	20	0	20	0	23	63
Asphalt and Road Oil	561	2	32	0	5	600
Miscellaneous Products	56	3	0	0	0	59
Total Imports	86,582	32,564	87,526	2,436	4,787	213,895

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(S) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Total (Daily Average)
	I	II	III	IV	V	
Crude Oil (including lease condensate) ^{1 2}	34,315	27,297	76,356	1,619	3,603	143,190
Natural Gas Liquids	2,045	3,565	706	722	301	7,340
Pentanes plus	252	30	1	47	0	330
Liquefied Petroleum Gases	1,793	3,535	705	675	301	7,010
Ethane	2	0	0	0	8	10
Propane	692	2,468	308	381	54	3,903
Normal Butane	660	640	245	177	143	1,865
Isobutane	440	427	152	118	96	1,232
Other Liquids ¹	4,839	0	7,685	0	254	12,778
Unfinished Oils ¹	3,815	0	7,685	0	254	11,754
Naphthas and Lighter	24	0	1,200	0	254	1,478
Kerosene and Light Gas Oils	0	0	0	0	0	0
Heavy Gas Oils	3,430	0	1,394	0	0	4,824
Residuum	361	0	5,091	0	0	5,452
Motor Gasoline Blending Components	1,024	0	0	0	0	1,024
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	45,383	1,703	2,779	95	629	50,588
Finished Motor Gasoline	9,886	69	0	40	58	10,053
Finished Leaded Motor Gasoline	205	0	0	2	20	227
Finished Unleaded Motor Gasoline	9,681	69	0	38	38	9,826
Finished Aviation Gasoline	0	0	0	0	2	2
Naphtha-Type Jet Fuel	0	79	0	0	0	79
Kerosene-Type Jet Fuel	990	1,250	104	0	126	2,469
Bonded Aircraft Fuel	492	1,250	104	0	100	1,945
Other	498	0	0	0	26	524
Kerosene	502	0	488	0	0	990
Distillate Fuel Oil	10,737	145	2	55	63	11,002
Bonded Ships Bunkers	0	0	0	0	0	0
Other	10,737	145	2	55	63	11,002
Residual Fuel Oil	22,028	78	402	0	330	22,838
Bonded Ships Bunkers	0	0	0	0	0	0
Other	22,028	78	402	0	330	22,838
Naphtha < 400 Deg for Petro Feed Use	235	22	1,350	0	0	1,607
Other Oils > 400 Deg for Petro Feed Use	0	0	0	0	0	0
Special Naphthas	18	29	379	0	9	435
Lubricants	324	11	2	0	9	346
Waxes	26	15	0	0	4	45
Petroleum Coke	20	0	20	0	23	63
Asphalt and Road Oil	561	2	32	0	5	600
Miscellaneous Products	56	3	0	0	0	59
Total Imports	86,582	32,564	87,526	2,436	4,787	213,895
						6,900

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed, all other products are reported by the PAD District of entry

² Includes crude oil imported for storage in the Strategic Petroleum Reserve

(S) = Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding
Sources and estimation procedures. See Explanatory Notes 1 and 2

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	4,500	744	363	0	0	0	0	600	2,236	0	1,232	5,175	9,675	312
Iraq	3,839	0	0	0	0	0	0	0	0	0	0	0	3,839	124
Kuwait	5,966	0	1,526	0	0	0	0	0	0	0	0	1,526	7,492	242
Saudi Arabia	24,129	0	2,012	0	440	110	0	1,012	0	0	0	3,574	27,703	894
United Arab Emirates	1,138	0	0	0	0	592	0	147	0	0	0	739	1,877	61
Subtotal Arab OPEC	39,572	744	3,901	0	440	702	0	1,759	2,236	0	1,232	11,014	50,586	1,632
Other OPEC														
Ecuador	1,939	0	0	0	0	0	0	0	975	0	0	975	2,914	94
Gabon	4,116	0	0	0	0	0	0	0	0	0	0	0	4,116	133
Indonesia	4,257	0	771	0	0	0	0	0	536	0	0	1,307	5,564	179
Iran	4,25	0	0	0	0	0	0	0	0	0	0	0	4,25	1
Nigeria	12,316	0	0	0	0	0	0	0	261	0	0	261	12,577	406
Venezuela	11,278	714	1,481	159	301	826	0	2,607	5,517	0	429	12,033	23,311	752
Subtotal Other OPEC	33,931	714	2,252	159	301	826	0	2,607	7,289	0	429	14,576	48,507	1,565
Other														
Angola	5,293	0	0	0	0	0	0	0	354	0	0	354	5,647	182
Argentina	0	0	0	0	223	0	0	0	82	47	0	352	352	11
Australia	2,328	0	0	0	0	0	0	0	0	0	0	0	2,328	75
Bahama Islands	0	0	0	0	0	0	0	5	1,527	0	0	1,532	1,532	49
Belgium	0	0	903	0	485	0	0	0	345	0	2	1,735	1,735	56
Brazil	0	166	15	0	1,345	0	0	420	273	0	1	2,220	2,220	72
Cameroon	2,278	0	0	0	0	0	0	0	366	0	0	366	2,644	85
Canada	19,698	5,036	119	0	1,205	354	48	1,949	822	125	198	9,855	29,553	953
China, People's Republic	3,222	0	0	0	0	0	0	0	0	0	16	16	3,238	104
China, Taiwan	0	5	0	0	0	0	0	0	0	0	9	14	14	(s)
Colombia	4,255	0	0	0	0	0	0	0	657	0	0	657	4,912	158
Congo	0	0	0	0	0	0	0	0	150	0	0	150	150	5
Egypt	774	0	0	0	0	0	0	0	0	0	0	0	774	25
France	0	0	0	0	471	0	0	0	0	0	30	501	501	16
Germany, FD (W)	0	(s)	0	0	310	0	0	0	0	0	2	312	312	10
Greece	0	0	0	0	0	0	0	134	0	0	0	134	134	4
India	0	0	256	0	0	0	0	0	0	255	0	511	511	16
Italy	278	1	795	0	1,127	0	0	265	243	0	0	2,431	2,709	87
Japan	0	6	0	0	0	0	0	0	0	0	48	54	54	2
Korea, Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	14
Mexico	22,149	338	0	0	0	339	0	315	421	0	218	1,632	23,781	767
Netherlands Antilles	0	0	0	0	230	0	0	0	1,019	0	0	1,249	1,249	40
Netherlands	0	0	0	0	1,082	0	0	292	487	8	30	1,899	1,899	61
Norway	1,154	0	0	0	0	0	0	0	61	0	52	113	1,267	41
Oman	0	0	171	0	0	0	0	0	1,073	0	0	171	171	6
Peru	0	0	0	0	0	0	0	0	0	0	0	1,073	1,073	35
Puerto Rico	0	0	338	0	0	0	0	0	0	0	559	897	897	29
Romania	0	0	0	520	0	0	0	218	0	0	0	738	738	24
Singapore	0	0	0	0	0	0	0	0	330	0	0	330	330	11
South Africa	0	0	0	0	0	0	0	0	0	0	7	7	7	(s)
Spain	0	0	208	0	507	0	0	0	0	0	154	869	869	28

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Sweden	0	0	0	0	0	0	0	0	0	0	35	35	35	1
Trinidad and Tobago	2,334	0	0	0	138	23	115	201	410	0	0	887	3,221	104
Turkey	0	0	38	0	0	0	0	0	0	0	0	38	38	1
United Kingdom	4,188	0	496	0	1,389	0	0	185	372	0	30	2,472	6,660	215
U.S.S.R.	0	0	456	0	0	0	0	487	0	0	0	943	943	30
Virgin Islands	0	0	1,806	345	800	304	827	2,165	4,321	0	0	10,568	10,568	341
Zaire	1,312	0	0	0	0	0	0	0	0	0	0	0	1,312	42
Subtotal Other	69,687	5,552	5,601	865	9,312	1,020	990	6,636	13,313	435	1,391	45,115	114,802	3,703
Total Imports	143,190	7,010	11,754	1,024	10,053	2,548	990	11,002	22,838	435	3,052	70,705	213,895	6,900
PAD District I														
Arab OPEC														
Algeria	0	712	361	0	0	0	0	600	2,236	0	0	3,909	3,909	126
Saudi Arabia	4,042	0	0	0	440	98	0	1,012	0	0	0	1,550	5,592	180
United Arab Emirates	509	0	0	0	0	0	0	147	0	0	0	147	656	21
Subtotal Arab OPEC	4,551	712	361	0	440	98	0	1,759	2,236	0	0	5,606	10,157	328
Other OPEC														
Ecuador	1,939	0	0	0	0	0	0	0	975	0	0	975	2,914	94
Gabon	3,753	0	0	0	0	0	0	0	0	0	0	0	3,753	121
Indonesia	0	0	0	0	0	0	0	0	536	0	0	536	536	17
Nigeria	5,575	0	0	0	0	0	0	0	261	0	0	261	5,836	188
Venezuela	1,551	544	299	159	301	404	0	2,605	5,517	0	405	10,234	11,785	380
Subtotal Other OPEC	12,818	544	299	159	301	404	0	2,605	7,289	0	405	12,006	24,824	801
Other														
Angola	3,830	0	0	0	0	0	0	0	354	0	0	354	4,184	135
Argentina	0	0	0	0	223	0	0	0	82	11	0	316	316	10
Bahama Islands	0	0	0	0	0	0	0	5	1,527	0	0	1,532	1,532	49
Belgium	0	0	329	0	485	0	0	0	345	0	0	1,159	1,159	37
Brazil	0	0	15	0	1,345	0	0	420	273	0	1	2,054	2,054	66
Cameroon	1,560	0	0	0	0	0	0	0	366	0	0	366	1,926	62
Canada	1,706	535	5	0	1,038	161	48	1,686	744	7	44	4,268	5,974	193
China, People's Republic	1,446	0	0	0	0	0	0	0	0	0	16	16	1,462	47
Colombia	2,396	0	0	0	0	0	0	0	657	0	0	657	3,053	98
Congo	0	0	0	0	0	0	0	0	150	0	0	150	150	5
Egypt	774	0	0	0	0	0	0	0	0	0	0	0	774	25
France	0	0	0	0	471	0	0	0	0	0	0	471	471	15
Germany, FD (W)	0	(s)	0	0	310	0	0	0	0	0	2	312	312	10
Greece	0	0	0	0	0	0	0	134	0	0	0	134	134	4
Italy	278	1	450	0	1,127	0	0	265	243	0	0	2,086	2,364	76
Japan	0	0	0	0	0	0	0	0	0	0	22	22	22	1
Korea, Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Mexico	544	0	0	0	0	0	0	315	391	0	200	906	1,450	47
Netherlands Antilles	0	0	0	0	230	0	0	0	1,019	0	0	1,243	1,243	40
Netherlands	0	0	0	0	1,082	0	0	292	487	0	0	1,861	1,861	60

See footnotes at end of table

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Norway	1,154	0	0	0	0	0	0	0	61	0	52	113	1,267	41
Peru	0	0	0	0	0	0	0	0	1,073	0	0	1,073	1,073	35
Puerto Rico	0	0	338	0	0	0	0	0	0	0	559	897	897	29
Romania	0	0	0	520	0	0	0	218	0	0	0	738	738	24
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Spain	0	0	208	0	507	0	0	0	0	0	154	869	869	28
Trinidad and Tobago	444	0	0	0	138	23	115	201	410	0	0	887	1,331	43
United Kingdom	2,105	0	4	0	1,389	0	0	185	0	0	17	1,595	3,700	119
U.S.S.R.	0	0	0	0	0	0	0	487	0	0	0	487	487	16
Virgin Islands	0	0	1,806	345	800	304	339	2,165	4,321	0	0	10,080	10,080	325
Zaire	709	0	0	0	0	0	0	0	0	0	0	0	709	23
Subtotal Other	16,946	537	3,155	865	9,145	488	502	6,373	12,503	18	1,069	34,655	51,601	1,665
Total Imports	34,315	1,793	3,815	1,024	9,886	990	502	10,737	22,028	18	1,474	52,267	86,582	2,793
PAD District II														
Arab OPEC														
Algeria	852	0	0	0	0	0	0	0	0	0	0	0	852	27
Iraq	411	0	0	0	0	0	0	0	0	0	0	0	411	13
Saudi Arabia	3,329	0	0	0	0	0	0	0	0	0	0	0	3,329	107
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	25
Subtotal Arab OPEC	4,769	0	0	0	0	592	0	0	0	0	0	592	5,361	173
Other OPEC														
Nigeria	5,364	0	0	0	0	0	0	0	0	0	0	0	5,364	173
Venezuela	0	0	0	0	0	422	0	0	0	0	0	422	422	14
Subtotal Other OPEC	5,364	0	0	0	0	422	0	0	0	0	0	422	5,786	187
Other														
Canada	15,535	3,535	0	0	69	79	0	145	78	29	78	4,013	19,548	631
Mexico	1,453	0	0	0	0	235	0	0	0	0	0	235	1,688	54
South Africa	0	0	0	0	0	0	0	0	0	0	5	5	5	(s)
Trinidad and Tobago	176	0	0	0	0	0	0	0	0	0	0	0	176	6
Subtotal Other	17,164	3,535	0	0	69	314	0	145	78	29	83	4,253	21,417	691
Total Imports	27,297	3,535	0	0	69	1,329	0	145	78	29	83	5,267	32,564	1,050
PAD District III														
Arab OPEC														
Algeria	3,648	31	2	0	0	0	0	0	0	0	1,232	1,265	4,913	158
Iraq	3,428	0	0	0	0	0	0	0	0	0	0	0	3,428	111
Kuwait	5,966	0	1,526	0	0	0	0	0	0	0	0	1,526	7,492	242
Saudi Arabia	16,758	0	2,012	0	0	0	0	0	0	0	0	2,012	18,770	605
United Arab Emirates	452	0	0	0	0	0	0	0	0	0	0	0	452	15
Subtotal Arab OPEC	30,252	31	3,540	0	0	0	0	0	0	0	1,232	4,803	35,055	1,131

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III (continued)														
Other OPEC														
Gabon	363	0	0	0	0	0	0	0	0	0	0	0	363	12
Indonesia	1,859	0	517	0	0	0	0	0	0	0	0	517	2,376	77
Iran	425	0	0	0	0	0	0	0	0	0	0	0	425	1
Nigeria	1,377	0	0	0	0	0	0	0	0	0	0	0	1,377	44
Venezuela	9,727	170	1,182	0	0	0	0	2	0	0	24	1,378	11,105	358
Subtotal Other OPEC	13,351	170	1,699	0	0	0	0	2	0	0	24	1,895	15,246	492
Other														
Angola	1,463	0	0	0	0	0	0	0	0	0	0	0	1,463	47
Argentina	0	0	0	0	0	0	0	0	0	36	0	36	36	1
Australia	1,286	0	0	0	0	0	0	0	0	0	0	0	1,286	41
Belgium	0	0	574	0	0	0	0	0	0	0	2	576	576	19
Brazil	0	166	0	0	0	0	0	0	0	0	0	166	166	5
Cameroon	718	0	0	0	0	0	0	0	0	0	0	0	718	23
Canada	675	0	114	0	0	0	0	0	0	80	4	198	873	28
China, People's Republic	1,776	0	0	0	0	0	0	0	0	0	0	0	1,776	57
Colombia	1,859	0	0	0	0	0	0	0	0	0	0	0	1,859	60
France	0	0	256	0	0	0	0	0	0	255	0	30	511	1
India	0	0	345	0	0	0	0	0	0	0	0	345	345	16
Italy	0	0	0	0	0	0	0	0	0	0	26	26	26	1
Japan	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Malaysia	424	0	0	0	0	104	0	0	30	0	9	481	20,633	666
Mexico	20,152	338	0	0	0	0	0	0	0	8	30	38	38	1
Netherlands	0	0	171	0	0	0	0	0	0	0	0	171	171	6
Oman	0	0	0	0	0	0	0	0	0	0	35	35	35	1
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	1,714	55
Trinidad and Tobago	1,714	0	0	0	0	0	0	0	0	0	0	0	38	1
Turkey	0	0	38	0	0	0	0	0	0	0	0	38	38	1
United Kingdom	2,083	0	492	0	0	0	0	0	372	0	13	877	2,960	95
U.S.R.	0	0	456	0	0	0	0	0	0	0	0	456	456	15
Virgin Islands	0	0	0	0	0	0	488	0	0	0	0	488	488	16
Zaire	603	0	0	0	0	0	0	0	0	0	0	0	603	19
Subtotal Other	32,753	504	2,446	0	0	104	488	0	402	379	149	4,472	37,225	1,201
Total Imports	76,356	705	7,685	0	0	104	488	2	402	379	1,405	11,170	87,526	2,823
PAD District IV														
Other														
Canada	1,619	675	0	0	40	0	0	55	0	0	47	817	2,436	79
Subtotal Other	1,619	675	0	0	40	0	0	55	0	0	47	817	2,436	79
Total Imports	1,619	675	0	0	40	0	0	55	0	0	47	817	2,436	79

See footnotes at end of table

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	0	0	12	0	0	0	0	12	12	(s)
Subtotal Arab OPEC	0	0	0	0	0	0	12	0	0	0	0	12	12	(s)
Other OPEC														
Indonesia	2,398	0	254	0	0	0	0	0	0	0	0	254	2,652	86
Subtotal Other OPEC	2,398	0	254	0	0	0	0	0	0	0	0	254	2,652	86
Other														
Australia	1,042	0	0	0	0	0	0	0	0	0	0	0	1,042	34
Canada	163	291	0	0	58	114	0	63	0	9	25	560	723	23
China, Taiwan	0	0	0	0	0	0	0	0	0	0	9	14	14	(s)
Japan	0	6	0	0	0	0	0	0	0	0	0	6	6	(s)
Mexico	0	0	0	0	0	0	0	0	0	0	9	9	9	(s)
Singapore	0	0	0	0	0	0	0	0	330	0	0	330	330	11
Subtotal Other	1,205	301	0	0	58	114	0	63	330	9	43	918	2,123	68
Total Imports	3,603	301	254	0	58	126	0	63	330	9	43	1,184	4,787	154

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F, Petroleum Coke and miscellaneous products.

⁴ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	4,500	744	363	0	0	0	0	600	2,236	0	1,232	5,175	9,675	312
Iraq	3,839	0	0	0	0	0	0	0	0	0	0	0	3,839	124
Kuwait	5,966	0	1,526	0	0	0	0	0	0	0	0	1,526	7,492	242
Saudi Arabia	24,129	0	2,012	0	440	110	0	1,012	0	0	0	3,574	27,703	894
United Arab Emirates	1,138	0	0	0	0	592	0	147	0	0	0	739	1,877	61
Subtotal Arab OPEC	39,572	744	3,901	0	440	702	0	1,759	2,236	0	1,232	11,014	50,586	1,632
Other OPEC														
Ecuador	1,939	0	0	0	0	0	0	0	975	0	0	975	2,914	94
Gabon	4,116	0	0	0	0	0	0	0	0	0	0	0	4,116	133
Indonesia	4,257	0	771	0	0	0	0	0	536	0	0	1,307	5,564	179
Iran	425	0	0	0	0	0	0	0	0	0	0	0	425	1
Nigeria	12,316	0	0	0	0	0	0	0	261	0	0	261	12,577	406
Venezuela	11,278	714	1,481	159	301	826	0	2,607	5,517	0	429	12,033	23,311	752
Subtotal Other OPEC	33,931	714	2,252	159	301	826	0	2,607	7,289	0	429	14,576	48,507	1,565
Other														
Angola	5,293	0	0	0	0	0	0	0	354	0	0	354	5,647	182
Argentina	0	0	0	0	223	0	0	0	82	47	0	352	352	11
Australia	2,328	0	0	0	0	0	0	0	0	0	0	0	2,328	75
Bahama Islands	0	0	0	0	0	0	0	5	1,527	0	0	1,532	1,532	49
Belgium	0	0	903	0	485	0	0	0	345	0	2	1,735	1,735	56
Brazil	0	166	15	0	1,345	0	0	420	273	0	1	2,220	2,220	72
Cameroon	2,278	0	0	0	0	0	0	0	366	0	0	366	2,644	85
Canada	19,698	5,036	119	0	1,205	354	48	1,949	822	125	198	9,855	29,553	953
China, People's Republic	3,222	0	0	0	0	0	0	0	0	0	16	16	3,238	104
China, Taiwan	0	5	0	0	0	0	0	0	0	0	9	14	14	(s)
Colombia	4,255	0	0	0	0	0	0	0	657	0	0	657	4,912	158
Congo	0	0	0	0	0	0	0	0	150	0	0	150	150	5
Congo	774	0	0	0	0	0	0	0	0	0	0	0	774	25
Egypt	0	0	0	0	0	0	0	0	0	0	30	501	501	16
France	0	0	0	0	471	0	0	0	0	0	2	312	312	10
Germany, FD (W)	0	(s)	0	0	310	0	0	0	0	0	0	134	134	4
Greece	0	0	256	0	0	0	0	134	0	255	0	511	511	16
India	278	1	795	0	1,127	0	0	265	243	0	0	2,431	2,709	87
Italy	0	6	0	0	0	0	0	0	0	0	48	54	54	2
Japan	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Korea, Republic	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	14
Mexico	22,149	338	0	0	0	339	0	315	421	0	218	1,632	23,581	767
Netherlands Antilles	0	0	0	0	230	0	0	0	1,019	0	0	1,249	1,249	42
Netherlands	0	0	0	0	1,082	0	0	292	487	8	30	1,899	1,899	61
Norway	1,154	0	0	0	0	0	0	0	61	0	52	113	1,267	41
Oman	0	0	171	0	0	0	0	0	0	0	0	171	171	6
Peru	0	0	0	0	0	0	0	0	1,073	0	0	1,073	1,073	35
Puerto Rico	0	0	338	0	0	0	0	0	0	0	559	897	897	29
Romania	0	0	0	520	0	0	0	218	0	0	0	738	738	24
Singapore	0	0	0	0	0	0	0	0	330	0	0	330	330	11
South Africa	0	0	0	0	0	0	0	0	0	0	7	7	7	(s)
Spain	0	0	208	0	507	0	0	0	0	0	154	869	869	28
Sweden	0	0	0	0	0	0	0	0	0	0	35	35	35	1

See footnotes at end of table

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Trinidad and Tobago	2,334	0	0	0	138	23	115	201	410	0	0	887	3,221	104
Turkey	0	0	38	0	0	0	0	0	0	0	0	38	38	1
United Kingdom	4,188	0	496	0	1,389	0	0	185	372	0	30	2,472	6,660	215
U.S.S.R.	0	0	456	0	0	0	0	487	0	0	0	943	943	30
Virgin Islands	0	0	1,806	345	800	304	827	2,165	4,321	0	0	10,568	10,568	341
Zaire	1,312	0	0	0	0	0	0	0	0	0	0	0	1,312	42
Subtotal Other	69,687	5,552	5,601	865	9,312	1,020	990	6,636	13,313	435	1,391	45,115	114,802	3,703
Total Imports	143,190	7,010	11,754	1,024	10,053	2,548	990	11,002	22,838	435	3,052	70,705	213,895	6,900
PAD District I														
Arab OPEC														
Algeria	0	712	361	0	0	0	0	600	2,236	0	0	3,909	3,909	126
Saudi Arabia	4,042	0	0	0	440	98	0	1,012	0	0	0	1,550	5,592	180
United Arab Emirates	509	0	0	0	0	0	0	147	0	0	0	147	656	21
Subtotal Arab OPEC	4,551	712	361	0	440	98	0	1,759	2,236	0	0	5,606	10,157	328
Other OPEC														
Ecuador	1,939	0	0	0	0	0	0	0	975	0	0	975	2,914	94
Gabon	3,753	0	0	0	0	0	0	0	0	0	0	0	3,753	121
Indonesia	0	0	0	0	0	0	0	0	536	0	0	536	536	17
Nigeria	5,575	0	0	0	0	0	0	0	261	0	0	261	5,836	188
Venezuela	1,551	544	299	159	301	404	0	2,605	5,517	0	405	10,234	11,785	380
Subtotal Other OPEC	12,818	544	299	159	301	404	0	2,605	7,289	0	405	12,006	24,824	801
Other														
Angola	3,830	0	0	0	0	0	0	0	354	0	0	354	4,184	135
Argentina	0	0	0	0	223	0	0	0	82	11	0	316	316	10
Bahama Islands	0	0	0	0	0	0	0	5	1,527	0	0	1,532	1,532	49
Belgium	0	0	329	0	485	0	0	0	345	0	0	1,159	1,159	37
Brazil	0	0	15	0	1,345	0	0	420	273	0	1	2,054	2,054	66
Cameroon	1,560	0	0	0	0	0	0	0	366	0	0	366	1,926	62
Canada	1,706	535	5	0	1,038	161	48	1,686	744	7	44	4,268	5,974	193
China, People's Republic	1,446	0	0	0	0	0	0	0	0	0	16	16	1,462	47
Colombia	2,396	0	0	0	0	0	0	0	657	0	0	657	3,053	98
Congo	0	0	0	0	0	0	0	0	150	0	0	150	150	5
Egypt	774	0	0	0	0	0	0	0	0	0	0	0	774	25
France	0	0	0	0	471	0	0	0	0	0	0	471	471	15
Germany, FD (W)	0	(s)	0	0	310	0	0	0	0	0	2	312	312	10
Greece	0	0	0	0	0	0	0	134	0	0	0	134	134	4
Italy	278	1	450	0	1,127	0	0	265	243	0	0	2,086	2,364	76
Japan	0	0	0	0	0	0	0	0	0	0	22	22	22	1
Korea, Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Mexico	544	0	0	0	0	0	0	315	391	0	200	906	1,450	47
Netherlands Antilles	0	0	0	0	230	0	0	0	1,019	0	0	1,249	1,249	40
Netherlands	0	0	0	0	1,082	0	0	292	487	0	0	1,861	1,861	60
Norway	1,154	0	0	0	0	0	0	0	61	0	52	113	1,267	41

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Peru	0	0	0	0	0	0	0	0	1,073	0	0	1,073	1,073	35
Puerto Rico	0	0	338	0	0	0	0	0	0	0	559	897	897	29
Romania	0	0	0	520	0	0	0	218	0	0	0	738	738	24
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Spain	0	0	208	0	507	0	0	0	0	0	154	869	869	28
Trinidad and Tobago	444	0	0	0	138	23	115	201	410	0	0	887	1,331	43
United Kingdom	2,105	0	4	0	1,389	0	0	185	0	0	17	1,595	3,700	119
U.S.R.	0	0	0	0	0	0	0	487	0	0	0	487	487	16
Virgin Islands	0	0	1,806	345	800	304	339	2,165	4,321	0	0	10,080	10,080	325
Zaire	709	0	0	0	0	0	0	0	0	0	0	0	709	23
Subtotal Other	16,946	537	3,155	865	9,145	488	502	6,373	12,503	18	1,069	34,655	51,601	1,665
Total Imports	34,315	1,793	3,815	1,024	9,886	990	502	10,737	22,028	18	1,474	52,267	86,582	2,793
PAD District II														
Arab OPEC														
Algeria	852	0	0	0	0	0	0	0	0	0	0	0	852	27
Iraq	411	0	0	0	0	0	0	0	0	0	0	0	411	13
Saudi Arabia	3,329	0	0	0	0	0	0	0	0	0	0	0	3,329	107
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	25
Subtotal Arab OPEC	4,769	0	0	0	0	592	0	0	0	0	0	592	5,361	173
Other OPEC														
Nigeria	5,364	0	0	0	0	0	0	0	0	0	0	0	5,364	173
Venezuela	0	0	0	0	0	422	0	0	0	0	0	422	422	14
Subtotal Other OPEC	5,364	0	0	0	0	422	0	0	0	0	0	422	5,786	187
Other														
Canada	15,535	3,535	0	0	69	79	0	145	78	29	78	4,013	19,548	631
Mexico	1,453	0	0	0	0	235	0	0	0	0	0	235	1,688	54
South Africa	0	0	0	0	0	0	0	0	0	0	5	5	5	(s)
Trinidad and Tobago	176	0	0	0	0	0	0	0	0	0	0	0	176	6
Subtotal Other	17,164	3,535	0	0	69	314	0	145	78	29	83	4,253	21,417	691
Total Imports	27,297	3,535	0	0	69	1,329	0	145	78	29	83	5,267	32,564	1,050
PAD District III														
Arab OPEC														
Algeria	3,648	31	2	0	0	0	0	0	0	0	1,232	1,265	4,913	158
Iraq	3,428	0	0	0	0	0	0	0	0	0	0	0	3,428	111
Kuwait	5,966	0	1,526	0	0	0	0	0	0	0	0	1,526	7,492	242
Saudi Arabia	16,758	0	2,012	0	0	0	0	0	0	0	0	2,012	18,770	605
United Arab Emirates	452	0	0	0	0	0	0	0	0	0	0	0	452	15
Subtotal Arab OPEC	30,252	31	3,540	0	0	0	0	0	0	0	1,232	4,803	35,055	1,131

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III (continued)														
Other OPEC														
Gabon	363	0	0	0	0	0	0	0	0	0	0	0	363	12
Indonesia	1,859	0	517	0	0	0	0	0	0	0	0	517	2,376	77
Iran	425	0	0	0	0	0	0	0	0	0	0	0	425	1
Nigeria	1,377	0	0	0	0	0	0	0	0	0	0	0	1,377	44
Venezuela	9,727	170	1,182	0	0	0	0	2	0	0	24	1,378	11,105	358
Subtotal Other OPEC	13,351	170	1,699	0	0	0	0	2	0	0	24	1,895	15,246	492
Other														
Angola	1,463	0	0	0	0	0	0	0	0	0	0	0	1,463	47
Argentina	0	0	0	0	0	0	0	0	0	36	0	36	36	1
Australia	1,286	0	0	0	0	0	0	0	0	0	0	0	1,286	41
Belgium	0	0	574	0	0	0	0	0	0	0	2	576	576	19
Brazil	0	166	0	0	0	0	0	0	0	0	0	166	166	5
Cameroon	718	0	0	0	0	0	0	0	0	80	4	198	718	23
Canada	675	0	114	0	0	0	0	0	0	0	0	0	873	28
China, People's Republic	1,776	0	0	0	0	0	0	0	0	0	0	0	1,776	57
Colombia	1,859	0	0	0	0	0	0	0	0	0	0	0	1,859	60
France	0	0	0	0	0	0	0	0	0	0	30	30	30	1
India	0	0	256	0	0	0	0	0	0	255	0	511	511	16
Italy	0	0	345	0	0	0	0	0	0	0	0	345	345	11
Japan	0	0	0	0	0	0	0	0	0	0	26	26	26	1
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	14
Mexico	20,152	338	0	0	0	104	0	0	30	0	9	481	20,633	666
Netherlands	0	0	0	0	0	0	0	0	0	8	30	38	38	1
Oman	0	0	171	0	0	0	0	0	0	0	0	171	171	6
Sweden	0	0	0	0	0	0	0	0	0	0	35	35	35	1
Trinidad and Tobago	1,714	0	0	0	0	0	0	0	0	0	0	0	1,714	55
Turkey	0	0	38	0	0	0	0	0	0	0	0	38	38	1
United Kingdom	2,083	0	492	0	0	0	0	0	372	0	13	877	2,960	95
U.S.S.R.	0	0	456	0	0	0	0	0	0	0	0	456	456	15
Virgin Islands	0	0	0	0	0	0	488	0	0	0	0	488	488	16
Zaire	603	0	0	0	0	104	488	0	402	379	149	4,472	37,225	1,201
Subtotal Other	32,753	504	2,446	0	0	104	488	0	402	379	149	4,472	37,225	1,201
Total Imports	76,356	705	7,685	0	0	104	488	2	402	379	1,405	11,170	87,526	2,823
PAD District IV														
Other														
Canada	1,619	675	0	0	40	0	0	55	0	0	47	817	2,436	79
Subtotal Other	1,619	675	0	0	40	0	0	55	0	0	47	817	2,436	79
Total Imports	1,619	675	0	0	40	0	0	55	0	0	47	817	2,436	79

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	0	0	12	0	0	0	0	12	12	(S)
Subtotal Arab OPEC	0	0	0	0	0	0	12	0	0	0	0	12	12	(S)
Other OPEC														
Indonesia	2,398	0	254	0	0	0	0	0	0	0	0	254	2,652	86
Subtotal Other OPEC	2,398	0	254	0	0	0	0	0	0	0	0	254	2,652	86
Other														
Australia	1,042	0	0	0	0	0	0	0	0	0	0	0	1,042	34
Canada	163	291	0	0	58	114	0	63	0	9	25	560	723	23
China, Taiwan	0	5	0	0	0	0	0	0	0	0	9	14	14	(S)
Japan	0	6	0	0	0	0	0	0	0	0	0	6	6	(S)
Mexico	0	0	0	0	0	0	0	0	0	0	9	9	9	(S)
Singapore	0	0	0	0	0	0	0	0	330	0	0	330	330	11
Subtotal Other	1,205	301	0	0	58	114	0	63	330	9	43	918	2,123	68
Total Imports	3,603	301	254	0	58	126	0	63	330	9	43	1,184	4,787	154

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F, Petroleum Coke and miscellaneous products.

⁴ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(S) = Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures. See Explanatory Notes 1 and 2.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, January 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) 1	0	213	0	0	6,365	6,578	212
Natural Gas Liquids	15	538	731	47	110	1,442	47
Pentanes Plus	0	63	0	0	0	63	2
Liquefied Petroleum Gases	15	475	731	47	110	1,379	44
Ethane	(s)	125	(s)	0	(s)	126	4
Propane	8	125	695	19	45	892	29
Normal Butane	7	162	35	28	66	299	10
Isobutane	0	63	0	0	0	63	2
Finished Motor Gasoline	8	25	185	(s)	28	247	8
Naphtha-Type Jet Fuel	1	0	11	0	0	11	(s)
Kerosene-Type Jet Fuel	33	0	1,932	0	560	2,524	81
Kerosene	7	3	(s)	0	1	10	(s)
Distillate Fuel Oil	18	46	1,143	0	1,335	2,541	82
Residual Fuel Oil	1	0	1,334	0	4,563	5,899	190
Naphtha < 400 Deg. for Petro. Feed. Use	42	11	32	1	11	97	3
Other Oils > 400 Deg. for Petro. Feed. Use	0	14	633	0	247	894	29
Special Naphthas	9	6	44	0	5	64	2
Lubricants	156	45	235	3	120	560	18
Waxes	4	2	23	0	7	36	1
Petroleum Coke	394	28	4,218	(s)	2,018	6,657	215
Asphalt	(s)	1	(s)	1	1	4	(s)
Miscellaneous Products	30	3	11	(s)	6	50	2
Total Product Exports	718	721	10,531	53	9,013	21,037	679
Total Exports	718	934	10,531	53	15,378	27,615	891

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	
Crude Oil (including lease condensate) 1	0	213	0	0	6,365	212
Natural Gas Liquids	15	538	731	47	110	47
Pentanes Plus	0	63	0	0	0	2
Liquefied Petroleum Gases	15	475	731	47	110	44
Ethane	(s)	125	(s)	0	(s)	4
Propane	8	125	695	19	45	29
Normal Butane	7	162	35	28	66	10
Isobutane	0	63	0	0	0	2
Finished Motor Gasoline	8	25	185	(s)	28	8
Naphtha-Type Jet Fuel	1	0	11	0	0	(s)
Kerosene-Type Jet Fuel	33	0	1,932	0	560	81
Kerosene	7	3	(s)	0	1	(s)
Distillate Fuel Oil	18	46	1,143	0	1,335	82
Residual Fuel Oil	1	0	1,334	0	4,563	190
Naphtha < 400 Deg. for Petro. Feed. Use	42	11	32	1	11	3
Other Oils > 400 Deg. for Petro. Feed. Use	0	14	633	0	247	29
Special Naphthas	9	6	44	0	5	2
Lubricants	156	45	235	3	120	18
Waxes	4	2	23	0	7	1
Petroleum Coke	394	28	4,218	(s)	2,018	215
Asphalt	(s)	1	(s)	1	1	(s)
Miscellaneous Products	30	3	11	(s)	6	2
Total Product Exports	718	721	10,531	53	9,013	679
Total Exports	718	934	10,531	53	15,378	891

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada, and 3) shipments to U.S. territories.

(s) — Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, January 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	0	2	(s)	3	0	(s)	6	(s)
Australia	0	0	0	0	0	590	1	8	(s)	311	(s)	5	916	30
Bahamas	0	10	78	16	184	896	0	5	(s)	0	(s)	0	1,190	38
Bahrain	0	0	0	0	(s)	0	0	(s)	0	0	0	0	(s)	(s)
Belgium & Luxembourg	0	16	0	0	0	0	0	10	(s)	633	0	(s)	659	21
Brazil	0	0	0	0	0	0	0	7	(s)	0	0	1	9	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	213	529	60	362	286	0	10	88	(s)	41	2	123	1,717	55
Chile	0	0	0	0	0	0	(s)	31	(s)	0	0	1	32	1
China, Taiwan	303	1	0	0	3	1,083	0	42	(s)	(s)	0	9	1,483	48
Colombia	0	0	0	0	0	0	0	4	(s)	0	0	2	6	(s)
Costa Rica	0	0	0	0	0	0	0	6	(s)	0	0	1	8	(s)
Denmark	0	0	0	0	0	0	0	3	(s)	0	0	(s)	1	(s)
Dominican Republic	0	0	0	0	0	0	2	4	(s)	0	0	2	18	1
Ecuador	0	0	0	10	0	0	0	(s)	0	0	0	0	(s)	(s)
Egypt	0	0	0	0	0	0	1	2	0	(s)	0	0	3	(s)
El Salvador	0	0	0	0	0	0	0	3	0	0	0	0	3	(s)
Finland	0	0	0	0	0	0	0	4	1	349	0	205	559	18
France	0	0	0	0	0	0	0	0	0	0	0	0	392	13
French Pacific Isl	0	0	0	0	392	0	0	1	0	0	0	0	0	43
Ghana	0	0	0	0	0	0	0	(s)	0	43	0	0	346	11
Greece	0	1	0	0	0	0	0	(s)	(s)	345	0	(s)	365	12
Guatemala	0	31	35	0	291	0	0	8	(s)	0	0	0	1	(s)
Guinea	0	0	0	0	0	0	0	1	0	0	0	0	24	1
Honduras	0	16	0	0	5	0	1	1	1	0	0	(s)	2	(s)
Hong Kong	0	1	0	0	0	0	0	1	(s)	0	0	(s)	2	(s)
India	0	0	0	0	0	0	2	3	(s)	0	0	(s)	5	(s)
Indonesia	0	0	0	0	0	0	0	3	0	0	0	0	3	(s)
Israel	0	0	0	0	0	0	18	2	(s)	134	0	2	136	4
Italy	0	56	0	0	0	0	0	1	(s)	1,104	0	206	1,386	45
Ivory Coast	0	0	0	0	0	0	0	9	0	0	0	0	233	8
Jamaica	0	(s)	0	0	0	223	(s)	36	0	0	0	(s)	5,385	174
Japan	0	(s)	71	2,001	1,079	658	12	0	0	1,495	0	29	976	31
Jordan	0	0	0	0	0	0	0	16	(s)	343	0	0	1	(s)
Korea, Republic	0	2	1	0	1	416	3	0	0	0	0	0	(s)	(s)
Kuwait	0	1	0	0	0	0	0	(s)	0	0	0	0	1	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	1	(s)	0	0	0	1	(s)
Mexico	0	584	1	15	0	1,069	1	92	19	51	(s)	12	1,846	60
Netherlands	0	(s)	0	0	0	0	0	2	1	658	(s)	128	789	25
Netherlands Antilles	0	0	0	0	0	0	0	1	0	0	0	1	2	(s)
New Zealand	0	0	0	0	0	0	0	(s)	0	0	0	0	1	(s)
Nigeria	0	0	0	0	0	0	0	0	(s)	0	0	0	0	0
Norway	0	0	0	0	0	0	0	(s)	0	87	(s)	0	87	3
Panama	0	0	0	0	0	0	7	2	(s)	0	0	1	353	11
Peru	0	0	0	129	219	0	0	4	(s)	0	0	1	9	(s)
Philippines	0	0	0	0	0	0	1	7	(s)	0	0	1	832	27
Puerto Rico	798	3	0	0	0	1	(s)	20	(s)	0	(s)	6	6	(s)
Rep. of South Africa	0	0	0	0	0	0	(s)	(s)	0	(s)	0	1	23	1
Saudi Arabia	0	16	0	0	0	0	(s)	5	(s)	0	0	(s)	6	(s)
Singapore	0	1	0	0	0	0	2	3	(s)	0	0	(s)	6	(s)

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, January 1988 (continued)

Destination (Thousand Barrels)	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri- cants	Waxes	Petro- leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Spain	0	(s)	0	0	0	319	0	4	0	288	0	112	724	23
Surinam	0	18	0	0	0	0	0	5	0	0	0	0	23	1
Sweden	0	0	0	0	0	0	0	2	(s)	0	0	(s)	2	(s)
Switzerland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Thailand	0	0	0	0	0	0	0	3	0	0	0	48	51	2
Trinidad and Tobago	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	0	0	0	0	0	0	(s)	0	332	0	0	332	11
United Arab Emirates	0	(s)	0	0	0	0	0	16	0	0	(s)	(s)	16	1
United Kingdom	0	1	0	0	0	204	0	2	1	(s)	(s)	5	214	7
U.S.S.R.	0	0	0	0	0	0	0	54	0	73	0	2	129	4
Uruguay	0	0	0	0	0	0	0	(s)	(s)	201	0	1	212	(s)
Venezuela	0	0	0	2	(s)	0	0	6	(s)	0	0	3	212	7
Virgin Islands	5,264	1	0	0	0	0	0	13	0	0	0	(s)	5,278	170
West Germany	0	2	(s)	0	0	0	1	4	1	0	(s)	1	9	(s)
Yugoslavia	0	0	0	0	0	0	0	0	0	95	0	0	95	3
Other	0	90	1	0	(s)	439	(s)	11	(s)	29	(s)	1	571	18
Total	6,578	1,379	247	2,535	2,541	5,899	64	560	36	6,657	4	1,115	27,615	891

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada, and 3) shipments to U.S. territories

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products

(s) - Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding

Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	0	2	(s)	3	0	(s)	6	(s)
Australia	0	0	0	0	0	590	1	8	(s)	311	(s)	5	916	30
Bahamas	0	10	78	16	184	896	0	5	(s)	0	(s)	(s)	1,190	38
Bahrain	0	0	0	0	(s)	0	0	(s)	0	0	0	0	(s)	(s)
Belgium & Luxembourg	0	16	0	0	0	0	0	10	(s)	633	0	1	659	21
Brazil	0	0	0	0	0	0	(s)	7	(s)	0	0	0	9	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	213	529	60	362	286	0	10	88	4	41	2	123	1,717	55
Chile	0	0	0	0	0	0	(s)	31	(s)	0	0	0	32	1
China, Taiwan	303	1	0	0	3	1,083	(s)	42	1	41	0	9	1,483	48
Colombia	0	0	0	0	0	0	0	6	(s)	(s)	0	1	8	(s)
Costa Rica	0	(s)	0	0	0	0	0	(s)	0	0	0	1	1	(s)
Denmark	0	(s)	0	0	0	0	0	3	(s)	0	0	1	4	(s)
Dominican Republic	0	0	0	0	0	0	2	4	(s)	0	0	2	18	1
Ecuador	0	0	0	10	0	0	0	(s)	0	0	0	0	(s)	(s)
Egypt	0	0	0	0	0	0	0	2	0	0	0	0	3	(s)
El Salvador	0	0	0	0	0	0	1	3	0	(s)	0	0	3	(s)
Finland	0	0	0	0	0	0	0	4	0	0	0	0	559	18
France	0	0	0	0	0	0	0	1	1	349	0	205	392	13
French Pacific Isl.	0	0	0	0	392	0	0	1	0	0	0	0	43	1
Ghana	0	0	0	0	0	0	0	(s)	0	43	0	0	346	11
Greece	0	1	0	0	0	0	0	(s)	(s)	345	0	0	365	12
Guatemala	0	31	35	0	291	0	0	8	0	0	0	0	1	(s)
Guinea	0	0	0	0	0	0	0	1	0	0	0	0	24	1
Honduras	0	16	0	0	5	0	1	1	1	0	0	0	5	(s)
Hong Kong	0	1	0	0	0	0	0	3	(s)	0	0	0	5	(s)
India	0	0	0	0	0	0	2	3	(s)	0	0	0	3	(s)
Indonesia	0	0	0	0	0	0	0	3	0	0	(s)	0	0	0
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Israel	0	0	0	0	0	0	0	0	0	134	0	2	136	4
Italy	0	56	0	0	0	0	18	2	(s)	1,104	(s)	206	1,386	45
Ivory Coast	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Jamaica	0	(s)	0	0	0	223	(s)	9	0	0	0	0	233	8
Japan	0	(s)	71	2,001	1,079	658	12	36	3	1,495	0	29	5,385	174
Jordan	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Korea, Republic	0	2	1	0	1	416	3	16	(s)	343	0	194	976	31
Kuwait	0	1	0	0	0	0	0	(s)	0	0	0	0	1	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	1	(s)	0	0	0	1	(s)
Mexico	0	584	1	15	0	1,069	1	92	19	51	(s)	12	1,846	60
Netherlands	0	(s)	0	0	0	0	0	2	0	658	0	128	789	25
Netherlands Antilles	0	0	0	0	0	0	0	1	0	0	0	1	2	(s)
New Zealand	0	0	0	0	0	0	0	(s)	(s)	0	0	0	1	(s)
Nigeria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	(s)	0	87	(s)	0	87	3
Panama	0	0	0	0	80	0	7	2	(s)	0	0	1	89	3
Peru	0	(s)	0	129	219	0	4	4	(s)	0	0	1	353	11
Philippines	0	0	0	0	0	0	1	7	(s)	0	0	1	9	(s)
Puerto Rico	798	3	0	0	0	1	(s)	20	(s)	0	(s)	8	832	27
Rep. of South Africa	0	(s)	0	0	0	0	(s)	(s)	0	(s)	0	6	6	(s)
Saudi Arabia	0	16	0	0	0	0	(s)	5	0	(s)	0	1	23	1

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Singapore	0	1	0	0	0	0	2	3	(s)	0	0	(s)	6	(s)
Spain	0	(s)	0	0	0	319	0	4	0	288	0	112	724	23
Surinam	0	18	0	0	0	0	0	5	0	0	0	0	23	1
Sweden	0	0	0	0	0	0	0	2	(s)	0	0	(s)	2	(s)
Switzerland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Thailand	0	0	0	0	0	0	0	3	0	0	0	48	51	2
Trinidad and Tobago	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	0	0	0	0	0	0	(s)	0	332	0	0	332	11
United Arab Emirates	0	0	0	0	0	0	0	16	0	0	(s)	(s)	16	1
United Kingdom	0	1	0	0	0	204	0	2	1	(s)	(s)	5	214	7
U.S.S.R.	0	0	0	0	0	0	0	54	0	73	0	2	129	4
Uruguay	0	0	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
Venezuela	0	0	0	2	(s)	0	0	6	(s)	201	0	3	212	7
Virgin Islands	5,264	1	0	0	0	0	0	13	0	0	0	(s)	5,278	170
West Germany	0	2	(s)	0	0	0	1	4	1	0	(s)	1	9	(s)
Yugoslavia	0	0	0	0	0	0	0	0	0	95	0	0	95	3
Other	0	90	1	0	(s)	439	(s)	11	(s)	29	(s)	1	571	18
Total	6,578	1,379	247	2,535	2,541	5,899	64	560	36	6,657	4	1,115	27,615	891

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada, and 3) shipments to U.S. territories

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products (s) = Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding
Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1988
(Thousand Barrels)

(Thousands Barrels)																
Commodity	PAD District I			PAD District II			PAD District III					PAD District IV		United States		
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Crude Oil (incl. lease condensate)																
Refinery	--	--	13,361	--	--	--	12,582	--	--	--	--	--	47,396	1,950	23,442	98,731
Tank Farms and Pipelines	--	--	1,199	--	--	--	56,545	--	--	--	--	--	97,599	9,879	32,249	197,471
Leases	--	--	46	--	--	--	1,448	--	--	--	--	--	16,839	1,185	1,814	21,332
Strategic Petroleum Reserve ¹	--	--	0	--	--	--	0	--	--	--	--	--	542,720	0	0	542,720
Alaskan In-Transit	--	--	0	--	--	--	0	--	--	--	--	--	0	0	27,945	27,945
Total	--	--	14,606	--	--	--	70,575	--	--	--	--	--	704,554	13,014	85,450	888,199
Total Stocks, All Oils (excl. Crude Oil)																
Refinery	42,400	3,348	45,748	36,914	6,625	15,518	59,057	9,386	74,502	48,163	5,967	1,165	139,183	12,358	63,167	319,513
Bulk Terminal	--	--	103,742	--	--	--	72,318	--	--	--	--	--	64,454	3,020	23,698	267,232
Pipeline	--	--	26,734	--	--	--	36,981	--	--	--	--	--	42,379	2,504	4,903	113,501
Natural Gas Processing Plant	68	55	123	508	43	1,652	2,203	1,138	2,605	2,194	158	126	6,221	201	78	8,826
Total	--	--	176,347	--	--	--	170,559	--	--	--	--	--	252,237	18,083	91,846	709,072
Pentanes Plus																
Refinery	17	0	17	154	69	120	343	264	203	116	1	23	607	2	22	991
Bulk Terminal	--	--	9	--	--	--	2,099	--	--	--	--	--	929	0	7	3,044
Pipeline	--	--	0	--	--	--	397	--	--	--	--	--	777	80	0	1,254
Natural Gas Processing Plant	4	14	18	28	10	368	406	336	297	613	57	21	1,324	74	20	1,842
Total	--	--	44	--	--	--	3,245	--	--	--	--	--	3,637	156	49	7,131
Liquefied Petroleum Gases																
Refinery	711	10	721	1,649	150	574	2,373	1,017	2,029	2,374	35	29	5,484	298	628	9,504
Bulk Terminal	--	--	1,515	--	--	--	14,099	--	--	--	--	--	33,488	56	665	49,823
Pipeline	--	--	1,132	--	--	--	6,675	--	--	--	--	--	6,220	433	0	14,460
Natural Gas Processing Plant	64	41	105	480	33	1,283	1,796	784	2,304	1,576	99	105	4,868	127	58	6,954
Total	--	--	3,473	--	--	--	24,943	--	--	--	--	--	50,060	914	1,351	80,741
Ethane																
Refinery	5	0	5	1	0	0	1	55	358	0	0	0	413	0	0	419
Bulk Terminal	--	--	2	--	--	--	2,211	--	--	--	--	--	12,763	0	0	14,976
Pipeline	--	--	0	--	--	--	1,320	--	--	--	--	--	2,099	134	0	3,553
Natural Gas Processing Plant	0	0	0	17	0	134	151	81	608	113	5	15	822	3	0	976
Total	--	--	7	--	--	--	3,683	--	--	--	--	--	16,097	137	0	19,924

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1988 (continued)

(Thousand Barrels)																
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast	
Propane																
Refinery	387	3	390	971	34	156	1,161	371	965	1,034	8	3	2,381	54	174	4,160
Bulk Terminal	--	--	1,069	--	--	--	8,056	--	--	--	--	--	12,361	56	188	21,730
Pipeline	--	--	1,057	--	--	--	3,708	--	--	--	--	--	2,701	171	0	7,637
Natural Gas Processing Plant	26	34	60	420	23	780	1,223	431	687	281	38	49	1,486	80	41	2,890
Total	--	--	2,576	--	--	--	14,148	--	--	--	--	--	18,929	361	403	36,417
Normal Butane																
Refinery	266	7	273	413	71	301	785	318	455	973	8	17	1,771	140	323	3,292
Bulk Terminal	--	--	443	--	--	--	1,839	--	--	--	--	--	4,020	0	258	6,560
Pipeline	--	--	75	--	--	--	1,257	--	--	--	--	--	983	83	0	2,398
Natural Gas Processing Plant	35	5	40	24	10	273	307	227	620	499	37	32	1,415	39	11	1,812
Total	--	--	831	--	--	--	4,188	--	--	--	--	--	8,189	262	592	14,062
Isobutane																
Refinery	53	0	53	264	45	117	426	273	251	367	19	9	919	104	131	1,633
Bulk Terminal	--	--	1	--	--	--	1,993	--	--	--	--	--	4,344	0	219	6,557
Pipeline	--	--	0	--	--	--	390	--	--	--	--	--	437	45	0	872
Natural Gas Processing Plant	3	2	5	19	0	96	115	45	389	683	19	9	1,145	5	6	1,276
Total	--	--	59	--	--	--	2,924	--	--	--	--	--	6,845	154	356	10,338
Other Hydrocarbons and Alcohol																
Refinery	52	0	52	133	1	40	174	1	141	128	0	4	274	9	117	626
Total	--	--	52	--	--	--	174	--	--	--	--	--	274	9	117	626
Unfinished Oils																
Refinery	3,735	234	3,969	2,151	118	1,107	3,376	699	6,698	3,869	157	54	11,477	731	4,679	24,232
Naphthas and Lighter	2,958	158	3,116	1,533	58	371	1,962	479	5,542	2,682	151	3	8,857	242	3,606	17,783
Kerosene and Light Gas Oils	3,960	217	4,177	3,323	181	2,127	5,631	539	6,048	5,938	361	112	12,998	970	10,409	34,185
Heavy Gas Oils	880	128	1,008	2,245	3	1,161	3,409	367	5,676	3,292	109	0	9,444	356	4,921	19,138
Residuum	11,533	737	12,270	9,252	360	4,766	14,378	2,084	23,964	15,781	778	169	42,776	2,299	23,615	95,338
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1988 (continued)

Commodity		PAD District I				PAD District II				PAD District III				PAD District IV		PAD District V		United States
		East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast		
Motor Gasoline Blending Components																		
Refinery	5,058	111	5,169	5,014	688	1,597	7,299	1,445	7,794	5,872	164	224	15,499	2,016	8,146	38,129		
Bulk Terminal	--	--	197	--	--	--	275	--	--	--	--	--	707	25	8	1,212		
Pipeline	--	--	0	--	--	--	45	--	--	--	--	--	0	0	0	45		
Total	--	--	5,366	--	--	--	7,619	--	--	--	--	--	16,206	2,041	8,154	39,386		
Aviation Gasoline Blending Components																		
Refinery	0	0	0	148	0	5	153	0	0	50	0	0	50	0	52	255		
Total	--	--	0	--	--	--	153	--	--	--	--	--	50	0	52	255		
Total Finished Motor Gasoline																		
Refinery	9,826	484	10,310	6,005	1,405	2,484	9,894	1,851	11,988	5,786	1,201	197	21,023	2,485	9,577	53,289		
Bulk Terminal	--	--	38,850	--	--	--	27,791	--	--	--	--	--	11,782	1,797	12,545	92,765		
Pipeline	--	--	13,115	--	--	--	17,944	--	--	--	--	--	19,584	1,055	2,326	54,024		
Total	--	--	62,275	--	--	--	55,629	--	--	--	--	--	52,389	5,337	24,448	200,078		
Finished Leaded Motor Gasoline																		
Refinery	1,776	207	1,983	1,567	438	978	2,983	611	2,639	1,275	212	82	4,819	1,136	3,005	13,926		
Bulk Terminal	--	--	9,343	--	--	--	9,099	--	--	--	--	--	3,810	828	4,713	27,793		
Pipeline	--	--	1,850	--	--	--	5,141	--	--	--	--	--	4,660	427	453	12,531		
Total	--	--	13,176	--	--	--	17,223	--	--	--	--	--	13,289	2,391	8,171	54,250		
Finished Unleaded Motor Gasoline																		
Refinery	8,050	277	8,327	4,438	967	1,506	6,911	1,240	9,349	4,511	989	115	16,204	1,349	6,572	39,363		
Bulk Terminal	--	--	29,507	--	--	--	18,692	--	--	--	--	--	7,972	969	7,832	64,972		
Pipeline	--	--	11,265	--	--	--	12,803	--	--	--	--	--	14,924	628	1,873	41,493		
Total	--	--	49,099	--	--	--	38,406	--	--	--	--	--	39,100	2,946	16,277	145,828		
Finished Aviation Gasoline																		
Refinery	103	0	103	124	30	8	162	114	330	137	0	0	581	38	181	1,065		
Bulk Terminal	--	--	376	--	--	--	368	--	--	--	--	--	51	21	298	1,114		
Pipeline	--	--	0	--	--	--	70	--	--	--	--	--	3	0	0	73		
Total	--	--	479	--	--	--	600	--	--	--	--	--	635	59	479	2,252		

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1988 (continued)

Commodity	PAD District I			PAD District II			PAD District III			PAD		United States				
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.		New Mexico	Total	PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast
Naphtha-Type Jet Fuel																
Refinery	364	0	364	309	37	127	473	257	514	771	128	306	761	3 707		
Bulk Terminal	--	--	987	--	--	--	1 180	--	--	--	--	0	483	3 155		
Pipeline	--	--	213	--	--	--	220	--	--	--	--	107	398	1 504		
Total	--	--	1 564	--	--	--	1 873	--	--	--	--	413	1 642	8 366		
Kerosene-Type Jet Fuel																
Refinery	1 575	26	1 601	1 322	230	463	2 015	401	2 844	2 728	35	413	3 401	13 484		
Bulk Terminal	--	--	3 882	--	--	--	3 309	--	--	--	--	155	1 940	11 340		
Pipeline	--	--	3 491	--	--	--	2 897	--	--	--	--	288	942	13 088		
Total	--	--	8 974	--	--	--	8 221	--	--	--	--	856	6 283	37 912		
Kerosene																
Refinery	120	83	203	426	68	238	732	50	919	451	34	80	250	2 719		
Bulk Terminal	--	--	2 104	--	--	--	1 046	--	--	--	--	28	29	3 373		
Pipeline	--	--	334	--	--	--	234	--	--	--	--	0	9	1 090		
Total	--	--	2 641	--	--	--	2 012	--	--	--	--	108	288	7 182		
Distillate Fuel Oils																
Refinery	6 021	452	6 473	5 279	1 176	2 944	9 399	741	10 155	4 678	1 068	1 844	4 820	39 295		
Bulk Terminal	--	--	32 671	--	--	--	16 511	--	--	--	--	889	4 598	60 528		
Pipeline	--	--	8 449	--	--	--	8 406	--	--	--	--	541	1 002	27 324		
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	4	4	0	0	0	8		
Total	--	--	47 593	--	--	--	34 316	--	--	--	--	3 274	10 420	127 155		
Residual Fuel Oils																
Refinery	3 360	83	3 443	1 648	262	122	2 032	213	3 875	3 346	181	333	6 123	19 567		
Bulk Terminal	--	--	16 195	--	--	--	1 137	--	--	--	--	0	2 333	26 813		
Pipeline	--	--	0	--	--	--	0	--	--	--	--	0	188	248		
Total	--	--	19 638	--	--	--	3 169	--	--	--	--	333	8 644	46 628		
Naphtha < 400 Deg. Petro. Feed. Use																
Refinery	416	0	416	356	0	89	445	33	1 062	308	34	28	130	2 460		
Total	416	0	416	356	0	89	445	33	1 062	308	34	28	130	2 460		
Other Oils > 400 Deg. Petro. Feed. Use																
Refinery	5	0	5	9	0	0	9	71	899	191	0	2	92	1 269		
Total	5	0	5	9	0	0	9	71	899	191	0	2	92	1 269		

See footnotes at end of table

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, January 31, 1988 (continued)

(Thousands Barrels)														
Commodity	PAD District I			PAD District II			PAD District III				PAD		United States	
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.
Special Naphthas														
Refinery	505	44	549	196	0	128	96	1,221	37	188	0	1,542	9	140
Bulk Terminal	--	--	709	--	--	--	--	--	--	--	--	52	0	22
Total	--	--	1,258	--	--	--	--	--	--	--	--	1,594	9	162
Lubricants														
Refinery	360	897	1,257	928	0	203	28	4,553	1,396	469	0	6,446	105	986
Bulk Terminal	--	--	2,097	--	--	--	--	--	--	--	--	377	2	513
Total	--	--	3,354	--	--	--	--	--	--	--	--	6,823	107	1,499
Waxes														
Refinery	0	79	79	74	0	29	42	235	168	18	0	463	73	103
Total	--	--	79	--	--	--	--	--	--	--	--	463	73	103
Petroleum Coke														
Refinery	616	0	616	452	664	206	13	402	3,031	211	0	3,657	50	1,671
Total	616	0	616	452	664	206	13	402	3,031	211	0	3,657	50	1,671
Asphalt and Road Oil														
Refinery	1,445	309	1,754	3,251	1,475	1,361	627	903	522	1,421	198	3,671	1,945	2,083
Bulk Terminal	--	--	3,508	--	--	--	--	--	--	--	--	555	46	188
Total	--	--	5,262	--	--	--	--	--	--	--	--	4,226	1,991	2,271
Miscellaneous Products														
Refinery	313	33	346	185	10	14	38	471	292	1	0	802	23	269
Bulk Terminal	--	--	642	--	--	--	--	--	--	--	--	781	1	69
Pipeline	--	--	0	--	--	--	--	--	--	--	--	260	0	38
Natural Gas Processing Plant	0	0	0	0	0	1	18	0	1	2	0	21	0	0
Total	--	--	988	--	--	--	--	--	--	--	--	1,864	24	376
Total Stocks, All Oils	--	--	190,953	--	--	--	--	--	--	--	--	956,791	31,097	177,296
														1,597,271

1 Includes 38,395 thousand barrels of domestic crude oil.

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, January 31, 1988
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	11,326	37,834	2,307	39,144	19,638
Connecticut	361	1,312	224	2,080	332
Delaware, D.C., Maryland	372	1,713	87	2,158	1,686
Florida	1,238	4,993	162	1,768	1,342
Georgia	1,154	2,038	57	1,029	301
Maine, New Hampshire, Vermont	367	1,005	163	2,011	675
Massachusetts	416	1,797	108	3,300	1,439
New Jersey	1,671	9,469	87	10,094	7,272
New York	1,185	3,901	366	6,437	3,328
North Carolina	1,220	2,185	237	1,096	291
Pennsylvania	1,628	4,903	569	4,800	1,804
Rhode Island	157	572	w	1,190	w
South Carolina	602	1,388	78	740	w
Virginia	816	2,390	149	2,297	690
West Virginia	139	168	w	144	w
PAD District II Total	12,082	25,603	1,778	25,910	3,169
Illinois	2,098	5,109	284	4,446	1,246
Indiana	1,415	3,346	182	3,633	400
Iowa	705	1,148	w	1,266	w
Kansas, Nebraska	1,072	1,865	15	2,593	35
Kentucky	583	976	75	1,132	w
Michigan	1,168	3,103	203	2,630	225
Minnesota	747	1,304	w	1,817	230
Missouri	501	735	w	786	w
North & South Dakota	355	519	w	863	w
Ohio	1,177	3,060	604	2,482	316
Oklahoma	806	1,345	w	1,989	163
Tennessee	802	1,647	71	890	217
Wisconsin	653	1,446	w	1,383	50
PAD District III Total	8,629	24,176	1,620	22,618	14,784
Alabama	666	1,280	102	922	1,251
Arkansas	242	289	w	241	w
Louisiana	1,379	4,749	421	4,757	5,261
Mississippi	773	2,397	10	2,136	w
New Mexico	197	311	w	298	21
Texas	5,372	15,150	1,080	14,264	7,832
PAD District IV Total	1,964	2,318	108	2,733	333
Colorado	403	743	w	580	w
Idaho	162	88	w	173	w
Montana	644	545	w	684	83
Utah	272	340	w	501	85
Wyoming	483	602	w	795	w
PAD District V Total	7,718	14,404	279	9,418	8,456
Alaska	319	296	w	1,183	w
Arizona	354	481	w	282	w
California	3,951	9,494	180	4,604	5,655
Hawaii	101	392	w	409	w
Nevada	138	290	w	184	w
Oregon	913	1,022	w	1,032	260
Washington	1,942	2,429	w	1,724	1,193
United States Total	41,719	104,335	6,092	99,823	46,380

w = Withheld to avoid disclosure of individual company data.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, January 1988
(Thousand Barrels)

(Thousands Barrels)																							
Commodity	From I to			From II to					From III to					From IV to					From V to				
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	V	I	II	III	IV	
Crude Oil	0	0	0	243	2,789	690	0	474	43,355	0	5,688	1,841	0	1,129	0	15,117	0	0	0	0	0	0	
Petroleum Products	6,602	79	0	4,854	6,312	2,009	0	88,773	28,956	0	1,851	1,314	1,155	1,705	0	43	0	0	0	0	0	0	
Pentanes Plus	0	0	0	0	273	0	0	0	495	0	0	58	120	0	0	0	0	0	0	0	0	0	
Liquefied Petroleum Gases	0	0	0	1,437	3,657	309	0	3,149	5,541	0	0	511	1,035	0	0	0	0	0	0	0	0	0	
Unfinished Oils	0	0	0	0	0	0	0	172	0	0	109	0	0	0	0	0	0	0	0	0	0	0	
Blending Components																							
Motor Gasoline	10	0	0	89	0	0	0	19	62	0	0	0	0	0	0	0	0	0	0	0	0	0	
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Finished Motor Gasoline	4,518	0	0	2,084	1,287	828	0	44,051	14,724	0	1,028	412	0	976	0	0	0	0	0	0	0	0	
Finished Leaded Motor Gasoline	888	0	0	321	363	144	0	7,065	3,018	0	343	190	0	406	0	0	0	0	0	0	0	0	
Finished Unleaded Motor Gasoline	3,630	0	0	1,763	924	684	0	36,986	11,706	0	685	222	0	570	0	0	0	0	0	0	0	0	
Finished Aviation Gasoline	5	0	0	0	0	9	0	161	49	0	0	0	0	0	0	0	0	0	0	0	0	0	
Naphtha-Type Jet Fuel	0	0	0	0	128	0	0	525	0	0	273	74	0	166	0	0	0	0	0	0	0	0	
Kerosene-Type Jet Fuel	345	0	0	240	88	717	0	11,165	4,831	0	131	7	0	167	0	0	0	0	0	0	0	0	
Kerosene	122	0	0	76	98	0	0	1,115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Distillate Fuel Oil	1,593	0	0	748	492	146	0	26,177	2,835	0	310	252	0	396	0	0	0	0	0	0	0	0	
Residual Fuel Oil	0	0	0	45	271	0	0	646	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Naphtha and Other Oils for Petro. Feed. Use	9	9	0	79	18	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	
Special Naphthas	0	5	0	0	0	0	0	258	74	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lubricants	0	50	0	56	0	0	0	810	309	0	0	0	0	0	0	0	0	0	0	0	0	0	
Waxes	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Asphalt and Road Oil	0	0	0	0	0	0	0	474	15	0	0	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous Products	0	15	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	6,602	79	0	5,097	9,101	2,699	0	89,247	72,311	0	1,851	7,002	2,996	1,705	1,129	0	15,160	0	0	0	0	0	

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, January 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	III	IV
Crude Oil	0	0	0	63	2,789	690	0	43,355	0	0	5,688	1,841	0	2,634	0
Petroleum Products	6,493	0	3,079	6,023	2,009	71,407	25,874	0	1,742	1,314	1,155	1,705	0	0	0
Pentanes Plus	0	0	0	273	0	0	495	0	0	0	58	120	0	0	0
Liquefied Petroleum Gases	0	0	1,437	3,657	309	2,811	5,541	0	0	0	511	1,035	0	0	0
Blending Components	0	0	89	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,518	0	1,067	1,287	828	35,317	13,062	0	1,028	412	0	976	0	0	0
Finished Leaded Motor Gasoline	888	0	136	363	144	5,988	2,601	0	343	190	0	406	0	0	0
Finished Unleaded Motor Gasoline	3,630	0	931	924	684	29,329	10,461	0	685	222	0	570	0	0	0
Finished Aviation Gasoline	5	0	0	0	0	9	43	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	128	0	0	313	0	0	273	74	0	166	0	0
Kerosene-Type Jet Fuel	345	0	146	88	717	9,570	4,549	0	131	7	0	167	0	0	0
Kerosene	116	0	10	98	0	1,030	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,509	0	330	492	146	22,323	2,178	0	310	252	0	396	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,493	0	3,142	8,812	2,699	71,407	69,229	0	1,742	7,002	2,996	1,705	2,634	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, January 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	180	0	0	474	0	2,308	13,914	3,082	109	0	1,129	0
Petroleum Products	109	79	0	1,775	289	0	17,366	1,144	2,308	13,914	3,082	109	0	0	43
Liquefied Petroleum Gases	0	0	0	0	0	0	338	0	0	338	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	172	0	17	155	0	109	0	0	0
Motor Gasoline Blending Components	10	0	0	0	0	0	19	0	19	0	62	0	0	0	0
Finished Motor Gasoline	0	0	0	1,017	0	0	8,734	0	140	8,594	1,662	0	0	0	0
Finished Leaded Motor Gasoline	0	0	0	185	0	0	1,077	0	29	1,048	417	0	0	0	0
Finished Unleaded Motor Gasoline	0	0	0	832	0	0	7,657	0	111	7,546	1,245	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	118	0	32	86	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	94	0	0	212	0	0	212	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	66	0	0	1,595	25	189	1,381	282	0	0	0	0
Kerosene	6	0	0	418	0	0	85	0	55	30	0	0	0	0	0
Distillate Fuel Oil	84	0	0	45	271	0	3,854	1,119	906	1,829	657	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	646	0	402	244	0	0	0	0	0
Naphtha and Other Oils for Petro Feed Use	9	9	0	79	18	0	0	0	0	0	21	0	0	0	0
Special Naphthas	0	5	0	0	0	0	258	0	115	143	74	0	0	0	0
Lubricants	0	50	0	56	0	0	810	0	382	428	309	0	0	0	43
Waxes	0	0	0	0	0	0	7	0	7	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	474	0	0	474	15	0	0	0	0
Miscellaneous Products	0	15	0	0	0	0	44	0	44	0	0	0	0	0	0
Total	109	79	0	1,955	289	0	17,840	1,144	2,782	13,914	3,082	109	1,129	0	12,526

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, January 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	1,846	0	1,846	49,043	3,722	45,321	19,747	43,829	-24,082	690	7,529	-6,839	0	16,246	-16,246
Petroleum Products	93,627	6,681	86,946	36,872	13,175	23,697	7,589	119,580	-111,991	2,009	4,174	-2,165	3,556	43	3,513
Pentanes Plus	0	0	0	553	273	280	393	495	-102	0	178	-178	0	0	0
Liquefied Petroleum Gases	4,586	0	4,586	6,052	5,403	649	4,692	8,690	-3,998	309	1,546	-1,237	0	0	0
Unfinished Oils	172	0	172	0	0	0	0	281	-281	0	0	0	109	0	109
Blending Components															
Motor Gasoline	108	10	98	72	89	-17	0	81	-81	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	46,135	4,518	41,617	19,654	4,199	15,455	1,287	59,803	-58,516	828	1,388	-560	2,004	0	2,004
Finished Leaded Motor Gasoline	7,386	888	6,498	4,096	828	3,268	363	10,426	-10,063	144	596	-452	749	0	749
Finished Unleaded Motor Gasoline	38,749	3,630	35,119	15,558	3,371	12,187	924	49,377	-48,453	684	792	-108	1,255	0	1,255
Finished Aviation Gasoline	161	5	156	54	9	45	0	210	-210	9	0	9	0	0	0
Naphtha-Type Jet Fuel	525	0	525	74	128	-54	128	798	-670	0	240	-240	439	0	439
Kerosene-Type Jet Fuel	11,405	345	11,060	5,183	1,045	4,138	88	16,127	-16,039	717	174	543	298	0	298
Kerosene	1,191	122	1,069	122	174	-52	98	1,115	-1,017	0	0	0	0	0	0
Distillate Fuel Oil	26,925	1,593	25,332	4,680	1,386	3,294	492	29,322	-28,830	146	648	-502	706	0	706
Residual Fuel Oil	691	0	691	0	316	-316	271	646	-375	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	79	18	61	30	97	-67	27	21	6	0	0	0	0	0	0
Special Naphthas	258	5	253	74	0	74	5	332	-327	0	0	0	0	0	0
Lubricants	866	50	816	309	56	253	93	1,119	-1,026	0	0	0	0	43	-43
Waxes	7	0	7	0	0	0	0	7	-7	0	0	0	0	0	0
Asphalt and Road Oil	474	0	474	15	0	15	0	489	-489	0	0	0	0	0	0
Miscellaneous Products	44	15	29	0	0	0	15	44	-29	0	0	0	0	0	0
Total	95,473	6,681	88,792	85,915	16,897	69,018	27,336	163,409	-136,073	2,699	11,703	-9,004	3,556	16,289	-12,733

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 30. Production of Residual Fuel Oil by Sulfur Content by PAD District, January, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV			United States
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Texas Gulf Coast	La., Gulf Coast	Rocky Mt.	West Coast
Residual Fuel Oil	5,806	112	5,918	2,033	262	142	2,437	4,314	304	11	5,364	4,314	361	12,116
0.00 to 0.30% Sulfur	832	13	845	44	0	0	44	498	71	5	77	644	55	1,084
0.31 to 1.00% Sulfur	4,095	99	4,194	544	0	85	629	1,429	192	6	253	258	3	1,001
Greater Than 1.00% Sulfur	879	0	879	1,445	262	57	1,764	3,437	41	0	130	3,412	303	10,031
Total														31,285

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District, January 31, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV			United States
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Texas Gulf Coast	La., Gulf Coast	Rocky Mt.	West Coast
Residual Fuel Oil -- 0.00 to 0.30% Sulfur														
Refinery	587	50	637	22	0	0	22	45	258	772	6	13	1,094	499
Bulk Terminal	--	--	3,599	--	--	--	187	--	--	--	--	--	181	0
Total			4,236				209						49	499
Residual Fuel Oil -- 0.31 to 1.00% Sulfur														
Refinery	1,452	33	1,485	443	4	35	482	49	778	128	100	8	1,063	738
Bulk Terminal	--	--	6,102	--	--	--	248	--	--	--	--	--	3,717	276
Total			7,587				730						4,780	1,014
Residual Fuel Oil -- Greater than 1.00% Sulfur														
Refinery	1,321	0	1,321	1,183	258	87	1,528	119	2,839	2,446	75	0	5,479	4,886
Bulk Terminal	--	--	6,494	--	--	--	702	--	--	--	--	--	3,250	2,057
Total			7,815				2,230						8,729	6,943

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content, January 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to
	II	III	V	I	III	V	New Eng	Cent Atl	Low Atl	II	V	I	
Residual Fuel Oil													
0.00 to 0.30% Sulfur	0	0	0	45	271	0	646	0	402	244	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	45	271	0	494	0	250	244	0	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, January 1988
(Thousand Barrels)

Country	Residual Fuel Oil				Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%		
Arab OPEC					
Algeria	2,236	0	0		2,236
Iraq	0	0	0		0
Kuwait	0	0	0		0
Libya	0	0	0		0
Qatar	0	0	0		0
Saudi Arabia	0	0	0		0
United Arab Emirates	0	0	0		0
Subtotal Arab OPEC	2,236	0	0		2,236
Other OPEC					
Ecuador	0	0	975		975
Gabon	0	0	0		0
Indonesia	536	0	0		536
Iran	0	0	0		0
Nigeria	0	261	0		261
Venezuela	0	0	5,517		5,517
Subtotal Other OPEC	536	261	6,492		7,289
Other					
Angola	354	0	0		354
Australia	0	0	0		0
Bahamas	0	919	608		1,527
Bolivia	0	0	0		0
Brazil	273	0	0		273
Brunei	0	0	0		0
Canada	16	352	454		822
China, People's Republic	0	0	0		0
Congo	150	0	0		150
Egypt	0	0	0		0
France	0	0	0		0
Ghana	0	0	0		0
Liberia	0	0	0		0
Malaysia	0	0	0		0
Mexico	0	0	421		421
Netherlands	209	278	0		487
Netherlands Antilles	0	0	1,019		1,019
Norway	0	61	0		61
Oman	0	390	683		1,073
Peru	0	0	0		0
Puerto Rico	0	0	0		0
Romania	0	0	0		0
Spain	0	0	0		0
Syria	0	0	0		0
Trinidad	0	0	410		410
Tunisia	0	0	0		0
United Kingdom	0	0	372		372
Virgin Islands	1,370	703	2,248		4,321
Yugoslavia	0	0	0		0
Zaire	0	0	0		0
Other Western Hemisphere	0	82	657		739
Other Eastern Hemisphere	675	609	0		1,284

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, January 1988 (continued)
(Thousand Barrels)

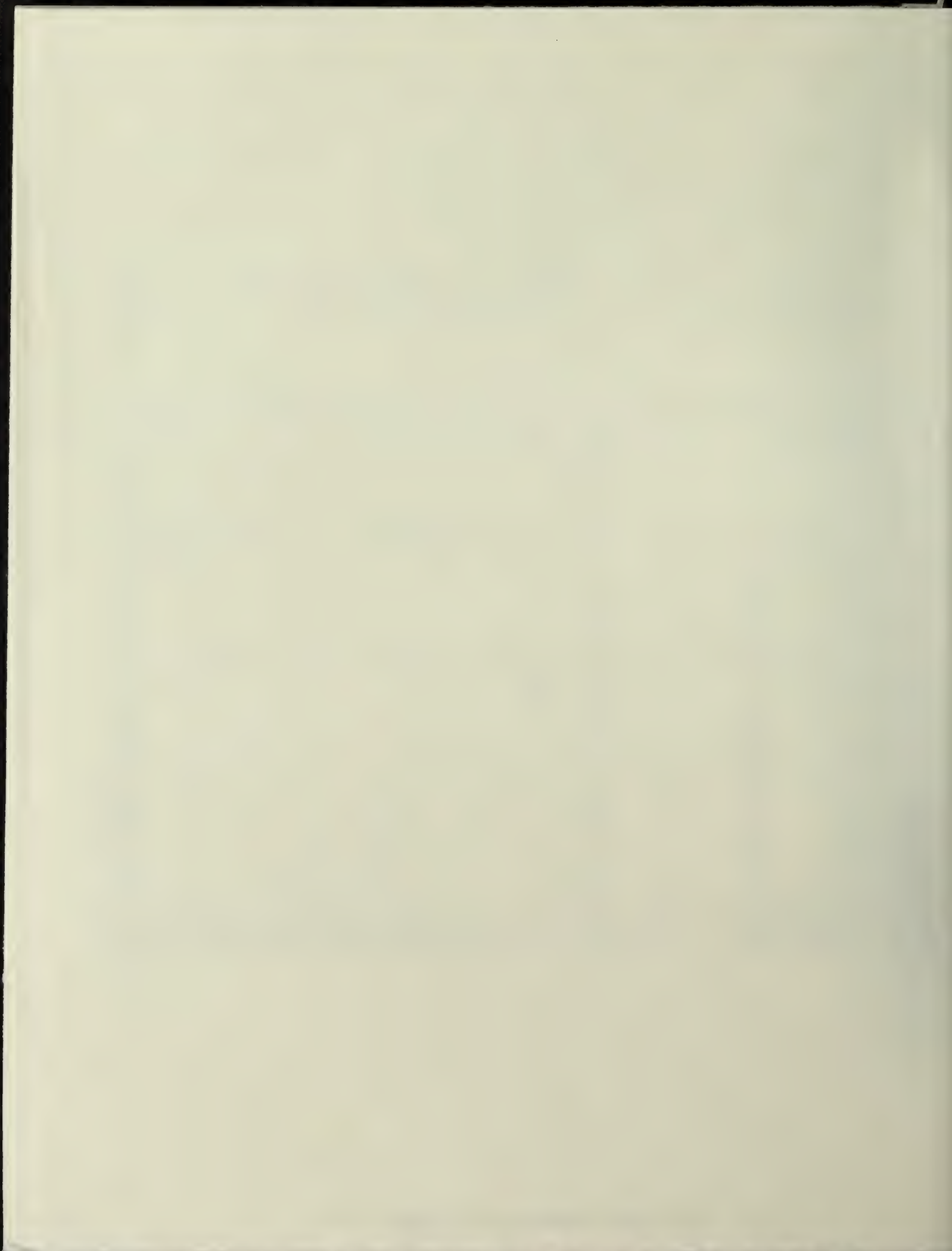
Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Subtotal Other	3,047	3,394	6,872	13,313
Total Imports	5,819	3,655	13,364	22,838

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, January 1988
(Thousand Barrels)

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	5,473	3,655	12,900	22,028
Florida	0	74	1,141	1,215
Georgia	0	0	203	203
Maine	0	352	790	1,142
Maryland	0	269	0	269
Massachusetts	0	558	2,486	3,044
New Hampshire	0	0	554	554
New Jersey	1,893	516	1,819	4,228
New York	3,580	1,538	2,285	7,403
North Carolina	0	0	1,038	1,038
Pennsylvania	0	348	1,097	1,445
Rhode Island	0	0	50	50
South Carolina	0	0	519	519
Vermont	0	0	6	6
Virginia	0	0	912	912
PAD District II	16	0	62	78
Michigan	16	0	30	46
North Dakota	0	0	32	32
PAD District III	0	0	402	402
Alabama	0	0	30	30
Texas	0	0	372	372
PAD District V	330	0	0	330
Hawaii	330	0	0	330
All PAD Districts	5,819	3,655	13,364	22,838

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2



Appendices





Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

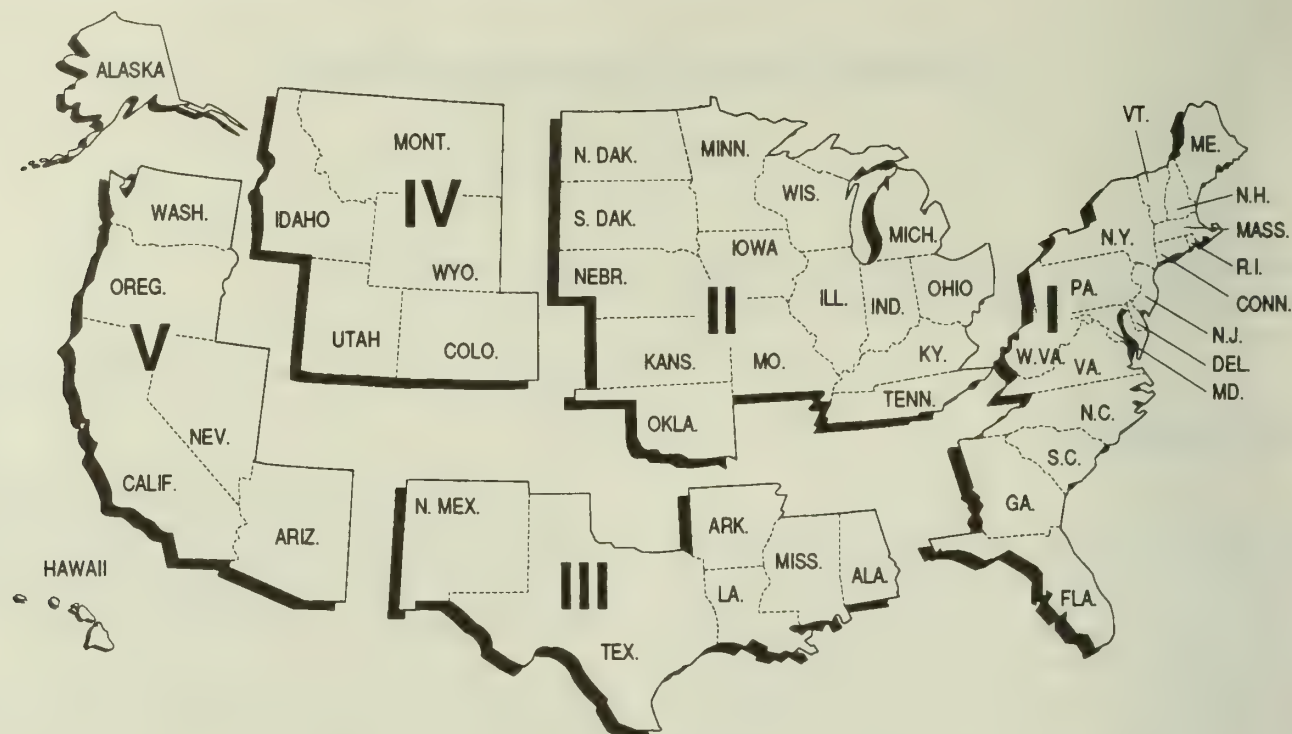
New Mexico: The State of New Mexico.

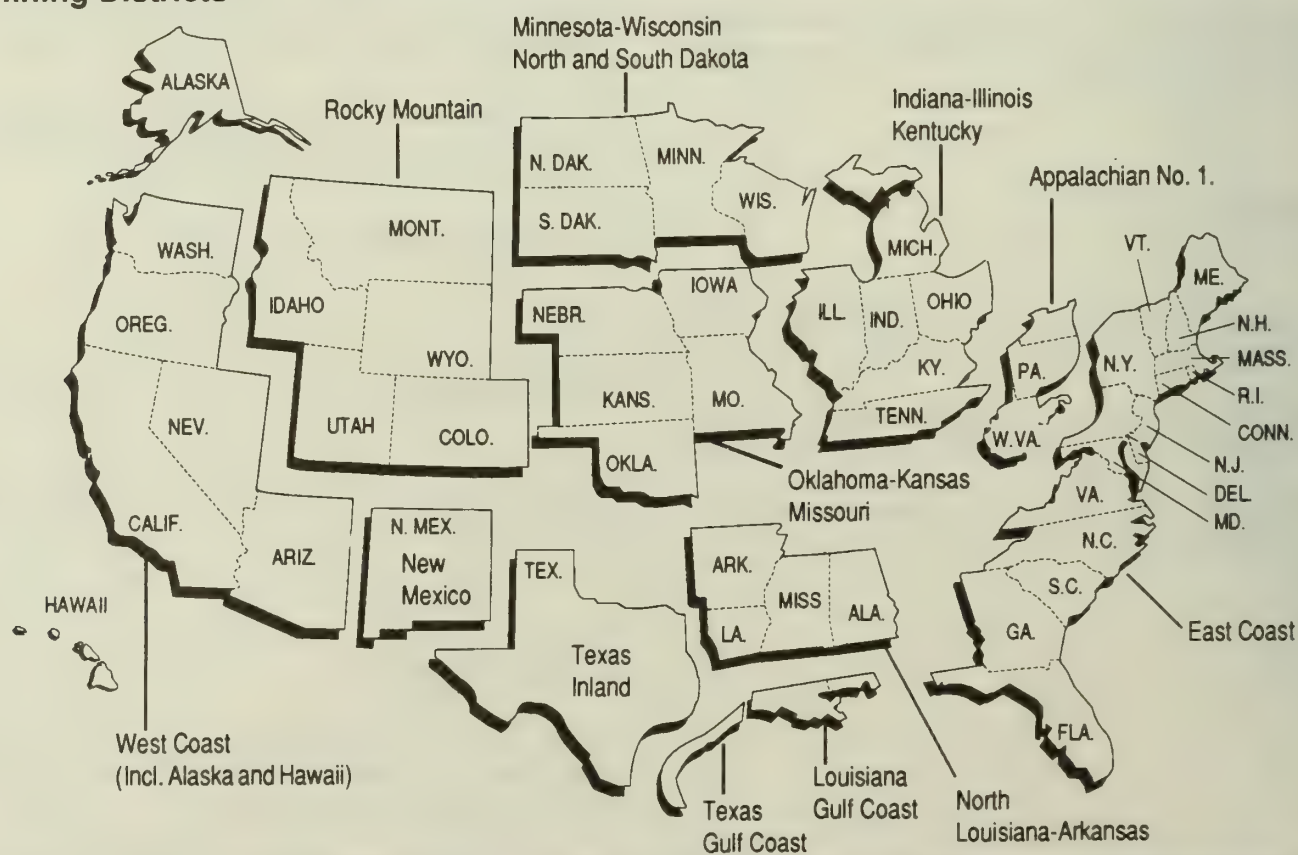
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.





Appendix B

Explanatory Notes

Note 1: Data Collection Methodology

Background

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	Weekly Refinery Report
EIA-801	Weekly Bulk Terminal Report
EIA-802	Weekly Product Pipeline Report
EIA-803	Weekly Crude Oil Stocks Report
EIA-804	Weekly Imports Report
EIA-810	Monthly Refinery Report
EIA-811	Monthly Bulk Terminal Report
EIA-812	Monthly Product Pipeline Report
EIA-813	Monthly Crude Oil Report
EIA-814	Monthly Imports Report
EIA-816	Monthly Natural Gas Liquids Report
EIA-817	Monthly Tanker and Barge Movement Report
EIA-820	Annual Refinery Report

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect weekly data on basic refinery operations and on crude oil and major petroleum products stocks and imports. Data from the WPSRS are published in the *Weekly Petroleum Status Report* (WPSR) and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (PSM). A description of the WPSRS survey forms follows in Explanatory Note 1.1.

Forms EIA-810 through 814, 816, and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. These surveys are the primary source of data for the

"Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Explanatory Note 1.2.

Data are also obtained on magnetic tape from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Explanatory Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 using data from an external source. Estimates from the EIA's weekly sample surveys (inaugurated in April 1979) replaced the estimates from the external source for all but the imports series in January 1980, and replaced the imports estimates in June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports all shipments entering the United States. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe which includes all petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. The selected sample size is 153.

EIA-801: Based on the EIA-811 universe which includes every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. The selected sample size is 70.

EIA-802: Based on the EIA-812 universe which includes all product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. The selected sample size is 43.

EIA-803: Based on the EIA-813 universe which includes companies that carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The selected sample size is 79.

EIA-804: Based on the EIA-814 universe which covers each company, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The selected sample size is 83.

Sampling Method

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period begins and ends each Friday at 7 a.m. All canvassed firms must file reports by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month, (M_t), is divided by the amount reported by the sample of companies for the most recent month, (M_s). The result is multiplied by the amount reported by the sample of companies for the current week, (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly refinery inputs and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratios multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for selected products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rate

The response rate for the published estimates is usually between 97 and 100 percent of the sampled respondents.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other

survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 260 respondents report on the EIA-810.

EIA-811: Every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 320 respondents report on the EIA-811.

EIA-812: All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the EIA-812.

EIA-813: All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 180 respondents report on the EIA-813.

EIA-814: All companies, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. Approximately 1,500 respondents report on the EIA-814.

EIA-816: All facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 1,050 respondents report on the EIA-816.

EIA-817: All companies that have custody of crude oil or petroleum products transported by tanker or barge between PAD Districts or between the Panama Canal and the United

States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 50 respondents report on the EIA-817.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Every three years an extensive survey is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, Federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month, with the exception of the EIA-814 which is due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed for companies that do not respond to EIA Forms 810-813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the EIA-814 and 817 are not imputed.

Response Rate

The response rate is generally 99 to 100 percent by the time the data are first published. Nonrespondents are contacted in writing and reminded of their requirement to report.

Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data tapes are the only source of export statistics and are used to augment the import data collected by the EIA.

Import Statistics (IM-145)

Coverage

Census import statistics used in the PSM reflect both government and nongovernment imports of merchandise from foreign countries and U.S. possessions into the United States (the 50 States and the District of Columbia) without regard to whether or not a commercial transaction is involved. The following types of transactions are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Census export statistics used in the PSM reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

1. Merchandise shipped in-transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
2. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census. Exporters are required to file export documents with Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey descriptions and other details, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form EIA-814, *Monthly Imports Report*. In addition, imports of NGL's are obtained from the Census Bureau Tabulation IM-145. The Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. Additional data taken from the IM-145 are relatively small quantities of naphtha-type and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the Form EIA-814 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks. A negative result (-) would represent a buildup of stocks. For a description of survey forms used to make stock withdrawal or addition calculations, see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports, and stock withdrawals. Crude oil disposition is the sum of exports, refinery input, losses, stock additions, and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supply from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. All except four of the producing States report data monthly. These States are New York, Ohio, Pennsylvania, and Virginia. Estimates of monthly production for these States are made using methodologies explained in the next paragraph. After the end of each calendar year, the monthly numbers are updated using the annual reports of the State conservation agencies and the Minerals Management Service.

Table 11 of this publication provides information on crude oil production for the most recent month for which State values are available. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly State crude oil production data become available. In order to present more timely crude oil production values, the Energy Information Administration prepares a forecast estimate on the first day of the reference month and revised estimates approximately 75 days later which are based on historical production patterns and are summed to obtain national and Petroleum Administration for Defense District (PADD) level crude oil production values. The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. The forecast estimates are published in the *Weekly Petroleum Status Report* and are also used to calculate the preliminary estimates in the "Summary Statistics" section of the *Petroleum Supply Monthly*.

These forecast estimates are then replaced by the revised estimates in the next issue of the *Petroleum Supply Monthly*.

Table B1 is intended to provide further insight into EIA's estimates of monthly U.S. crude oil production. It shows (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon data collected on Form EIA-182, *Domestic Crude Oil First Purchase Report*, is

used in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the reference month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available 74 days after the reference month and includes imputation as

needed. A final revision is published concurrent with publication of EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is used in the *Petroleum Supply Annual*.

Table B1. U.S. Crude Oil¹ Production Estimates and Reported State² Data by Month (Thousand Barrels per Day)

Date of Data Availability	Month of Production																	
	10-86	11-86	12-86	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88
Reported State Data ³																		
11-14-86	0																	
12-14-86	1928	0																
1-14-87	1950	1883	0															
2-14-87	6441	1907	1808	0														
3-14-87	8292	6454	1881	1971	0													
4-14-87	8424	7908	7842	4704	1942	0												
5-14-87	8419	7908	7842	7606	4844	2033	0											
6-14-87	8419	8381	7842	7594	7291	4813	2057	0										
7-14-87	8419	8381	8317	7594	7291	7579	4618	2068	0									
8-14-87	8419	8381	8317	8376	8068	7667	7615	4654	2012	0								
9-14-87	8419	8381	8317	8380	8068	8152	8110	7218	4665	1999	0							
10-14-87	8419	8381	8317	8409	8290	8356	8288	8210	7672	4264	1997	0						
11-14-87	8419	8381	8317	8413	8291	8356	8412	8211	8139	7276	2971	1945	0					
12-14-87	8419	8381	8317	8409	8292	8369	8411	8255	8140	7752	7724	5008	2088	0				
1-14-88	8419	8381	8317	8409	8292	8369	8412	8255	8179	7756	7731	7252	4866	2152	0			
2-14-88	8419	8381	8317	8410	8294	8370	8412	8256	8191	8095	8034	8039	7703	5296	2127	0		
3-14-88	8419	8381	8317	8410	8294	8370	8412	8256	8191	8095	8071	8039	8190	8205	3208	2086	0	0
Producing States Without Reported Monthly Production ⁴																		
3-14-88	0	0	0	4	4	4	4	4	4	5	5	6	6	6	15	29	33	33
Month of Production																		
Type of Estimate	10-86	11-86	12-86	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88
Production Estimate																		
Original ⁵	8773	8737	8711	8354	8384	8336	8361	8296	8303	8287	8204	8162	8281	8283	8348	8395	8353	8306
Interim ⁶	8434	8321	8348	8477	8318	8349	8426	8305	8263	8242	8190	8190	8293	8330	8340	8245		
Form EIA-182																		
Initial	8175	8007	7989	8034	8079	8214	8287	8149	8168	8078	8022	8110	8151	8162	8144	8017		
Revised	8296	8149	8142	8232	8210	8266	8306	8161	8178	8082	8032	8084	8153	8173	8172			
Final ⁷	8419	8412	8352															

¹ Includes lease condensate.

² Includes Federal offshore areas, Gulf of Mexico (PADD III) and Pacific (PADD V), as two separate reporting entities.

³ Includes EIA prorated monthly production in 1986 (annual average of 50 thousand barrels per day) for four States (New York, Ohio, Pennsylvania, and Virginia) for which only annual State data are available.

⁴ New York, Ohio, Pennsylvania, and Virginia are counted as having monthly reported data in 1986 after their annual reports were received.

⁵ Original estimates in 1986 were made on a quarterly cycle. For example, January, February and March 1986 estimates were made at the end of December 1985. Original estimates after December 1986 were made on the first of each month.

⁶ All 1986 interim estimates were made on January 7, 1987. January and February 1987 interim estimates were made on March 5 and April 6, 1987, respectively. Interim estimates after February 1987 were made 44 days after the end of the production month.

⁷ Published in the *Petroleum Supply Annual* 1986 DOE/EIA 0340(86)/2.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries reported for all refineries on Form EIA-810, *Monthly Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, and the Virgin Islands, which are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Product supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production net having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in-transit is also included. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers. For survey descriptions and other details, see Explanatory Note 1.2.

Note 6: Average Stock Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, residual oil, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels are described below.

The graphs displaying inventory levels of crude oil and petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the report inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases, were derived using monthly data from 1979-1985.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the *average range* is twice the standard deviation.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other details, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the "Summary Statistics" section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition, statistics on the referenced line appear in Table 1 of the "Detailed Statistics," except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Gross Imports Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted for Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- Crude Losses and Product Supplied appear as labeled in Table 4.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.
- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, ethylene, propane, propylene, butane, butylene, and isobutane. The statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases. The statistics on the referenced line are aggregated from Table 4 of the "Detailed Statistics," except where noted.

- Total production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska, Lower 48 States, and Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.
- Line (5): *SPR Imports* are reported on survey Form EIA-814.
- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude oil losses minus crude oil product supplied in Table 2.
- Line (14): Natural Gas Plant Liquids (NGPL) *Field Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.
- Line (15): NGPL *Net Imports* equals the sum of the imports of pentanes plus minus the exports of pentanes plus in Table 2.
- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the stock withdrawal (+) or addition (-) of pentanes plus in Table 2.
- Line (17): *Total NGPL Supply* equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids *Stock Withdrawal (+) or Addition (-)* equals the aggregate stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components in Table 2.
- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.
- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).
- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of natural gas

liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus field production of other liquids; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.
- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.
- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).
- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of natural gas liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus total field production of other liquids; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.
- Line (29): *Refined Products Stock Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.
- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.
- Lines (31) through (34): Equal the respective products supplied in Table 2.
- Line (35): *Other Products Supplied* equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, naphtha <400 Deg. F. for petrochemical feedstock use, other oils >400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products supplied in Table 2.
- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

- The sum of lines (38) and (39): *Stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve* equals ending stocks of crude oil in Table 2.

- Line (43): *Stocks of Finished Refined Products* equals the sum of liquefied petroleum gases and finished petroleum products stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1,462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the "Summary Statistics," is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the "Summary Statistics." This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108.
- Other Petroleum Products: 1983 - 248.

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1981 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ¹
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

¹FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied (Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate				
Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual				
Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: Natural Gas Liquids Reporting Changes

Beginning in January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record-keeping practices used by the industry. The following table shows the product category under the new and old basis. Four PSRS surveys were modified beginning in January 1984. They were:

- EIA-810 *Monthly Refinery Report*
- EIA-811 *Monthly Bulk Terminal Report*
- EIA-812 *Monthly Product Pipeline Report*
- EIA-816 *Monthly Natural Gas Liquids Report*

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Adjustments are applied to NGL imports data to make them consistent with the revised reporting system (See Explanatory Note 14).

Table B4. Product Basis vs. Component Basis Reporting

1979-1983 Product Basis	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Note 14: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquids (NGL) supply data, moving from a nine-product slate basis to a five-component slate basis that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first six months of 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by

Table B5. Algorithm for Allocating NGL Imports/Exports

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline And Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Propane (IM-145)		100%			
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			
Export Product					
Ethane (All PADD)	100%				
Propane (All PADD)		100%			
Butane (All PADD)			100%		
Mixed Streams					
PADD I, IV, V		40%	60%		
PADD II	30%	25%	15%	15%	15%
PADD III		80%	20%		

Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15: Addition of Crude Oil Pipeline Movements Data

Beginning in January 1985, inter-PAD District pipeline movements of crude oil were included in the PSM. Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the PSM that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6-10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products." 1985 crude oil imports and unfinished oil imports in Tables 6 through 10 are now reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts." A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes net movements by pipeline as well as by tanker and barge.

Note 16: 1986 Changes in Petroleum Industry Reporting

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (Thousand Barrels per Day)		Stocks ¹ (Thousand Barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGL's & LRG's	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	-	-	2,314	318,695

¹ Stocks as of December 31, 1985.

Also, beginning in January 1986, a major integrated petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities have been combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which will show a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes have been made to tables in the PSM either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes are:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
 - Alaskan crude oil receipts are now shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
 - The "petrochemical feedstock use" and "other use" are no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
 - Imports of unfinished oils are now separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" are shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely and consistent energy information.

Changes in Data Collection and Reporting Systems

- Fresh feed input to catalytic cracking units, hydrocracking units and cokers were added to the Form EIA-810, *Monthly Refinery Report*.

Changes in Publications

- The "Appalachian No. 2" Refining District has been combined with the "Indiana, Illinois, Kentucky," Refining District. This affects PSM Tables 12-15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units and cokers are included in Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during

1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all Foreign Trade Zone facilities located within the 50 United States are considered domestic entities and are included in statistics in the PSM. The principal differences in the PSM data series are about a 1 percent increase in crude oil imports and a 3 percent decrease in product imports.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1987
(Thousand Barrels per Day, Except Where Noted)

Product	JAN		FEB		MAR		APR		MAY		JUN	
	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff
Inputs												
Crude Oil	12,570	-1	12,296	2	12,085	-4	12,513	-1	12,662	-9	13,200	2
LPGs	419	0	341	1	282	0	276	-2	270	-1	255	0
Production												
LPGs	1,764	-7	1,784	-19	1,768	-1	1,781	-2	1,736	1	1,741	-5
Finished Motor Gasoline	6,688	26	6,367	-4	6,555	13	6,851	-2	6,991	0	7,089	0
Naphtha-Type Jet Fuel	168	8	185	9	181	6	199	3	220	-4	204	0
Kerosene-Type Jet Fuel	1,196	-4	1,138	-3	1,099	-4	1,052	0	1,032	3	1,048	0
Kerosene	129	0	79	-1	61	0	46	0	37	0	38	0
Distillate Fuel Oil	2,774	0	2,574	6	2,384	1	2,553	1	2,565	-2	2,689	0
Residual Fuel Oil	919	0	833	0	867	-2	831	0	814	-2	863	1
Imports												
Crude Oil	4,385	-5	3,896	-45	3,742	37	4,115	17	4,243	83	4,788	14
Finished Motor Gasoline	320	10	303	1	342	22	362	12	348	8	385	0
Naphtha-Type Jet Fuel	12	-6	10	-7	12	-6	3	0	2	0	2	0
Kerosene-Type Jet Fuel	21	0	50	10	43	7	38	0	24	16	29	2
Distillate Fuel Oil	197	11	229	27	251	46	185	7	201	2	248	18
Residual Fuel Oil	667	19	612	35	552	7	541	-64	498	7	477	4
Other Products	395	19	548	79	544	36	437	88	460	2	640	6
Stocks (MB)												
Crude Oil	333,741	-1,307	331,951	-756	333,353	-1,409	331,024	-2,062	325,351	-648	329,826	-2,228
Unfinished Oils	94,665	-405	102,695	-478	107,575	-442	105,477	-471	102,950	-952	102,804	-412
LPGs	87,379	-231	81,604	-216	82,208	-511	86,382	-997	95,257	-1,087	100,708	-1,293
Total Motor Gasoline	249,893	1,218	250,681	-599	249,174	-1,124	242,558	-777	235,187	-279	230,570	-149
Naphtha-Type Jet Fuel	7,427	204	6,749	392	6,722	309	6,865	243	7,930	148	7,328	-66
Kerosene-Type Jet Fuel	42,734	-618	41,194	-319	41,406	-362	40,105	-188	39,499	-222	38,677	0
Distillate Fuel Oil	141,366	45	123,525	275	109,982	-579	100,403	-70	101,804	-518	104,267	124
Residual Fuel Oil	45,025	-23	38,124	-59	39,627	-88	35,923	-64	40,331	40	41,334	22
Product Supplied												
LPGs	1,988	0	1,815	-20	1,556	8	1,486	16	1,296	4	1,407	2
Finished Motor Gasoline	6,469	-5	6,726	64	6,921	43	7,317	-4	7,472	-10	7,531	8
Naphtha-Type Jet Fuel	166	-7	219	-5	193	2	196	5	188	-1	226	7
Kerosene-Type Jet Fuel	1,152	16	1,223	-4	1,128	4	1,129	-6	1,071	20	1,100	-5
Distillate Fuel Oil	3,259	10	3,347	25	3,005	75	3,004	-9	2,670	14	2,793	-3
Residual Fuel Oil	1,462	20	1,470	37	1,220	5	1,257	-64	1,026	2	1,206	5
Major Products Supplied	14,496	34	14,800	98	14,023	139	14,389	-62	13,723	30	14,263	14

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Table C1. Impact of Resubmissions on Major Series, 1987 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	JUL		AUG		SEP		OCT		NOV		DEC		YTD
	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	PSM Value	Diff	Avg Diff
Inputs													
Crude Oil	13,432	-2	13,381	0	13,174	-7	12,725	4	12,982	11	--	--	0
LPGs	244	0	251	1	266	0	294	0	357	-1	--	--	0
Production													
LPGs	1,767	-1	1,722	-3	1,741	-6	1,741	-2	1,766	2	--	--	-4
Finished Motor Gasoline	7,041	2	6,933	0	6,925	-4	6,662	5	6,914	-6	--	--	3
Naphtha-Type Jet Fuel	221	0	207	1	203	1	219	8	225	0	--	--	3
Kerosene-Type Jet Fuel	1,125	1	1,193	-1	1,193	-4	1,188	0	1,163	0	--	--	-1
Kerosene	54	0	66	0	90	0	118	0	117	0	--	--	0
Distillate Fuel Oil	2,700	0	2,711	-6	2,750	-2	2,778	2	3,043	-5	--	--	0
Residual Fuel Oil	902	-1	877	6	905	0	885	0	925	-1	--	--	0
Imports													
Crude Oil	5,259	40	5,470	16	5,085	25	5,119	13	4,939	74	--	--	24
Finished Motor Gasoline	448	4	361	35	383	22	348	8	474	2	--	--	11
Naphtha-Type Jet Fuel	3	0	3	0	2	0	4	0	4	0	--	--	-2
Kerosene-Type Jet Fuel	31	8	20	0	43	0	18	5	27	0	--	--	4
Distillate Fuel Oil	378	2	215	7	217	1	222	1	180	0	--	--	11
Residual Fuel Oil	680	41	511	1	513	8	380	19	546	12	--	--	8
Other Products	459	19	557	3	520	7	575	18	502	23	--	--	27
Stocks (MB)													
Crude Oil	326,227	-2,477	334,261	-1,834	338,619	-1,494	353,230	2,869	362,864	809	--	--	-958
Unfinished Oils	100,013	8	103,580	0	102,895	89	104,603	34	102,270	-320	--	--	-304
LPGs	105,518	-1,617	112,161	-241	116,187	-2,243	110,896	1,616	110,853	-2,263	--	--	-826
Total Motor Gasoline	226,550	-197	226,343	-3	229,618	58	218,026	12	225,087	76	--	--	-160
Naphtha-Type Jet Fuel	7,231	22	6,950	31	6,454	52	7,097	65	7,108	0	--	--	127
Kerosene-Type Jet Fuel	39,480	-1	40,795	-31	43,785	-102	42,719	20	43,820	31	--	--	-163
Distillate Fuel Oil	114,688	-86	125,169	-167	126,934	-172	121,134	-177	129,035	-1,082	--	--	-219
Residual Fuel Oil	45,119	-425	45,499	168	44,233	174	45,361	216	49,706	227	--	--	17
Product Supplied													
LPGs	1,534	9	1,424	-48	1,576	61	1,832	-127	1,609	132	--	--	4
Finished Motor Gasoline	7,575	6	7,313	29	7,170	16	7,289	17	7,151	-6	--	--	14
Naphtha-Type Jet Fuel	227	-2	217	1	221	0	202	7	227	2	--	--	1
Kerosene-Type Jet Fuel	1,125	7	1,168	0	1,101	-1	1,205	1	1,108	-1	--	--	3
Distillate Fuel Oil	2,704	9	2,540	4	2,844	-1	3,134	3	2,904	26	--	--	14
Residual Fuel Oil	1,285	54	1,190	-12	1,283	7	1,035	18	1,181	10	--	--	8
Major Products Supplied	14,450	83	13,852	-26	14,195	82	14,697	-81	14,180	164	--	--	43

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.



Glossary



Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}(\text{CH})_n\text{OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr.}_{60^\circ \text{F}} / 60^\circ \text{F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cut-back asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C₄H₈), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 degrees F to 750 degrees F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. See *Motor Gasoline (Finished)*.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 degrees F to 1000 degrees F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See *Butane*.

Isohexane. A saturated branch-chain hydrocarbon, (C₆H₁₄). It is a colorless liquid that boils at a temperature of 156.2 degrees F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C₄), an alkylation process feedstock, and normal pentane and hexane into

isopentane, (C₅), and isohexane, (C₆), high-octane gasoline components.

Isopentane. See *Natural Gasoline and Isopentane*.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10-percent recovery point, a final boiling point of 572 degrees F, and a minimum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 degrees F at the 10-percent recovery point and a final maximum boiling point of 572 degrees F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 degrees F to 650 degrees F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants"

includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. A product of hydrotreating, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a range in distillation temperatures from 122 to 158 degrees F at the 10-percent recovery point and from 365 to 374 degrees F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.

Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Naphtha-type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 degrees F at the 20-percent recovery point and 470 degrees F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See *Butane*.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemi-

cals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F" and "Other oils over 400 degrees F."

Naphtha-Less Than 400 Degrees F. A naphtha with a boiling range of less than 400 degrees F that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. Oils with a boiling range of over 400 degrees F that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 degrees F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank and is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per barrel (42 U.S. gallons).

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C₆H₅CH₃), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas, kerosene, light and heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 degrees F (D1321)-60 maximum. Viscosity at 210 degrees F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscos-

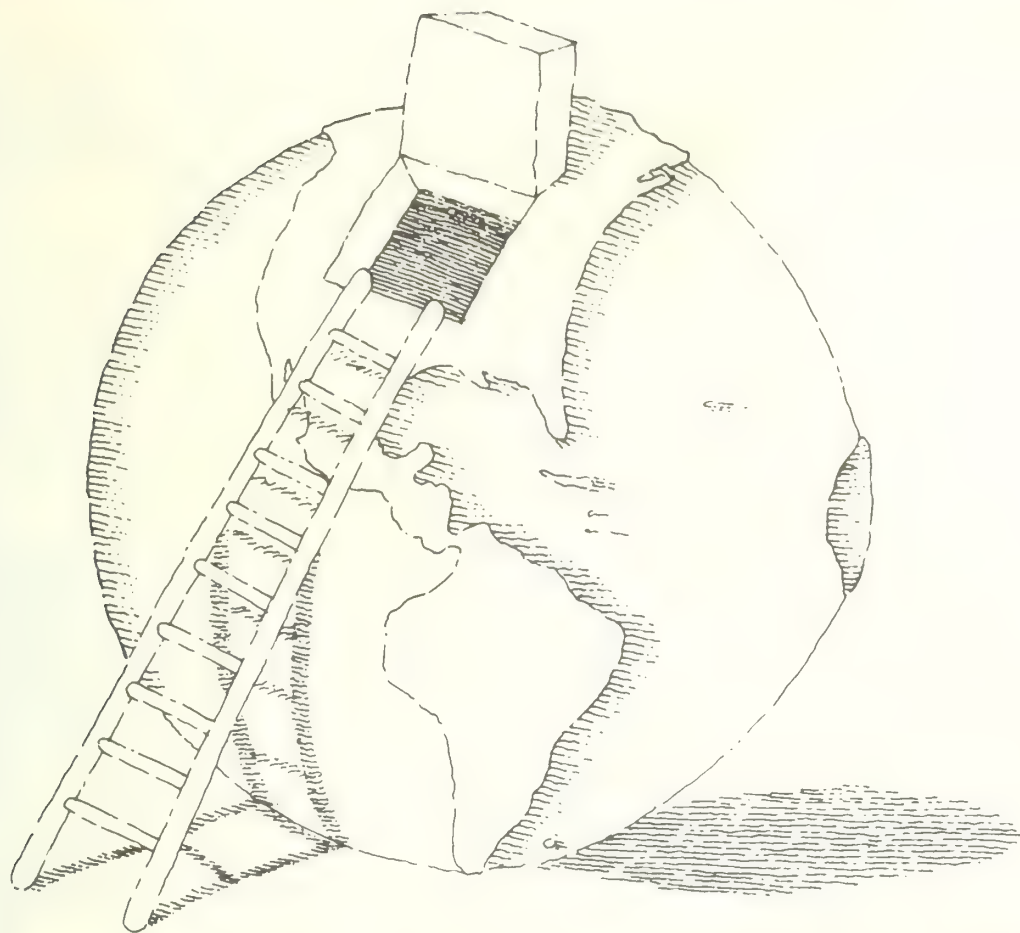
ity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Working Storage Capacity. The volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C₆H₄Y(CH₃)₂), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.



Explore new frontiers

With most of today's scientific news coming from deep within the atom or from near the boundaries of space, it may be hard to believe that everyone has a role in progress.

But unless we renew our nation's emphasis on education in basic, down-to-earth sciences and engineering, we're going to lose our traditional world leadership in research and technology. And the impact won't be in some distant galaxy, but right in our own communities.

We can't take it for granted any longer that

we're the best. Our world neighbors are striving and achieving, too.

You don't have to be a genius to help America stay on top.

Chairman of the board or just a face in the crowd—educator or student, community leader or just a good neighbor—all it takes is wanting to play a part.

Make sure our children will be able to fill the roles waiting for them.

Today's frontiers are closer to home than you think.

**NATIONAL SCIENCE &
TECHNOLOGY WEEK**



APRIL 24-30

1988

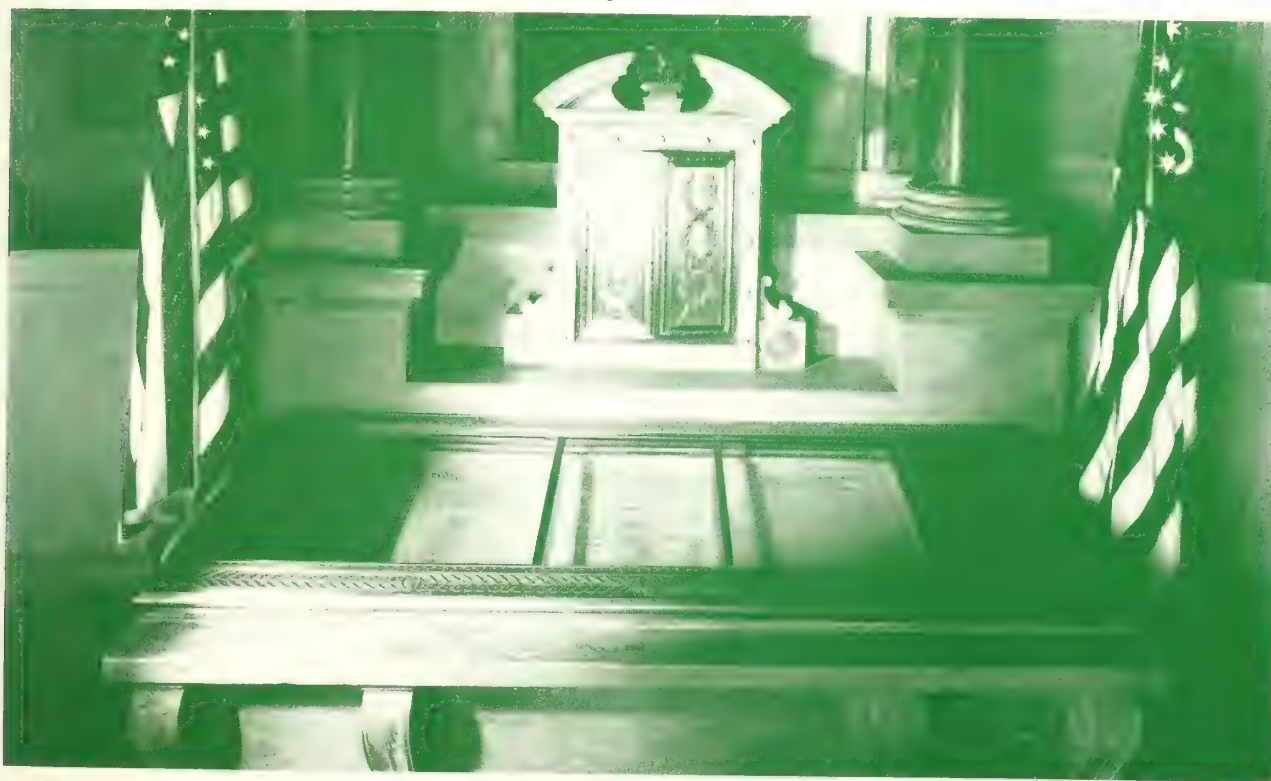
Get involved in National Science & Technology Week, April 24-30, coordinated by the National Science Foundation—Your involvement can make a difference.

THE NEW YORK PUBLIC LIBRARY

ASTOR LENOX TILDEN FOUNDATION
500 FIFTH AVENUE
NEW YORK 10017

THE PRESIDENT DOESN'T TAKE AN OATH TO DEFEND THE AMERICAN FLAG OR THE STATUE OF LIBERTY.

The President takes an oath to defend something even more important than a majestic symbol of our country.



The President takes an oath to defend the Constitution of the United States. A document that has been described as the greatest leap forward for freedom in human history. A document that is the foundation of our country. And the means by which we achieve the rule of law and protect our freedom.

As we commemorate the Bicentennial of the Constitution, there is no better way for you as an American to reaffirm the principles for which our country stands than to learn more about the Constitution.

The words we live by.

THE CONSTITUTION

The words we live by

To learn more about the Constitution write: Constitution, Washington, D.C. 20540. The Commission on the Bicentennial of The U.S. Constitution.



U.S. Department of Energy
Forrestal Building, E1-231
Washington, DC 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

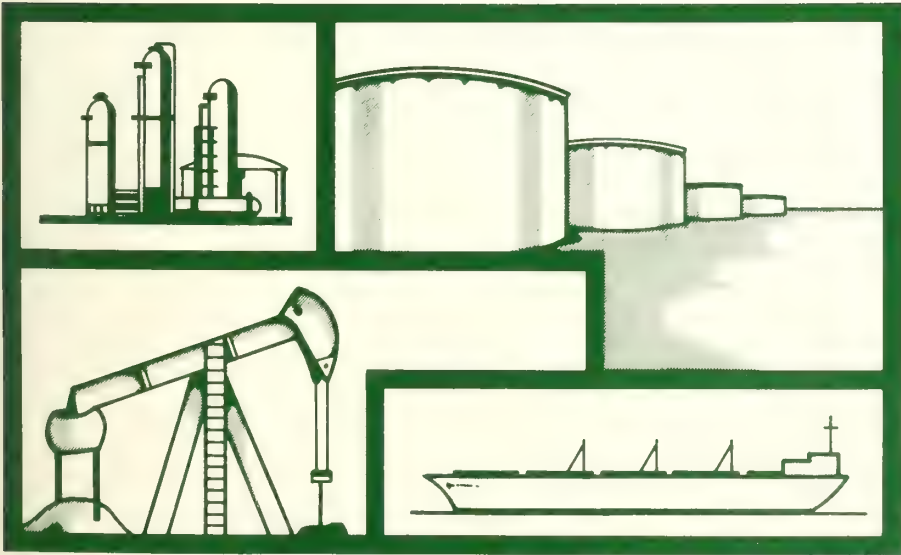
FIRST CLASS MAIL



Energy Information Administration

Petroleum Supply Monthly

February 1988



This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below.

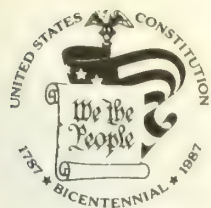
National Energy Information Center, EI-231
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, DC 20585
(202)586-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202)783-3238

We thank the following for the use of their photographs and illustrations in this report.

Exxon Company, U.S.A., page ix (courtesy of the American Petroleum Institute).
Alyeska Pipeline Service Company, page xiv (courtesy of the American Petroleum Institute).
Standard Oil Company, page xiii (courtesy of the American Petroleum Institute).

Released for printing: April 25, 1988



DOE/EIA-0109(88/02)
Distribution Category UC-98

Petroleum Supply Monthly

February 1988

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

The Library of the

JUN 17 1988

University of Illinois
at Urbana-Champaign

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), *Weekly Coal Production* (WCP), and *Electric Power Monthly* (EPM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202)586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a holiday) after 5:00 p.m. Monthly petroleum supply data for the current month are also provided and are updated by 5:00 p.m. on the 24th of each month. Monthly statistics from the *Electric Power Monthly* are available on or about the first working day of each month. Question or comments on petroleum data should be directed to T.C. Swann at (202)586-1155. Questions or comments on coal data should be directed to Hans Becker at (202)586-6874. Questions on electricity data should be directed to Dean Fennell at (202)586-5311.

Access Instructions:

- 1) DIAL (202)586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```
***                                     ***
***                                     ***
*** WELCOME TO THE                     ***
*** ENERGY INFORMATION ADMINISTRATION ***
*** ELECTRONIC PUBLICATION SYSTEM      ***
***                                     ***
```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT
PSMR - PETROLEUM SUPPLY MONTHLY
STKS - PSM STATE STOCKS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT
EPMS - U.S. ELECTRIC POWER STATISTICS

PLEASE ENTER THE DESIRED REPORT ID... **PSMR**

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

\$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED MONTHLY STATISTICS FROM PETROLEUM SUPPLY MONTHLY (PSM) SYSTEM. THIS SYSTEM WILL DISPLAY THE MOST RECENT PSM DATA FOR TABLES 4, 11, 18, AND 24. PLEASE TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:

- 7 Data Bits
- 1 Stop Bit
- Even Parity

EIA Petroleum Data Available In Machine-Readable Files

Petroleum supply statistics are available on five magnetic tapes. One tape contains final 1983 through 1986 petroleum supply statistics by month, taken from the *Petroleum Supply Annual*; the second contains preliminary 1987 and 1988 statistics to date by month, from the *Petroleum Supply Monthly*. Three additional tapes contain current and historical statistics on imports of crude oil and petroleum products into the United States and Puerto Rico. The current import tape contains preliminary 1987 and 1988 statistics to date by month. The two historical import tapes contain final statistics by month. One tape contains statistics for the years 1977 through 1985; the second contains 1986 statistics. The current tapes are updated each month. All tapes are fully documented.

Tapes are sold for \$200 each and should be referenced by National Technical Information Service (NTIS) number:

<i>Petroleum Supply Annual</i> -- 1983-1986	PB87-194502
<i>Petroleum Supply Monthly</i> -- Preliminary (1987-1988)	PB87-206694
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985	PB87-147781
Oil Imports into the United States and Puerto Rico, Annual -- 1986	PB87-194494
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1987-1988)	PB87-194510

To order, contact:

National Technical Information Service (NTIS)
Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Stephen Patterson	(202) 586-5994
Supply and Disposition	Stephen Patterson	(202) 586-5994
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Nancy Masterson	(202) 586-8393
Imports	Claudette Graham	(202) 586-9649
Exports	T. C. Swann	(202) 586-1155
Stocks	Beverly Harris	(202) 586-5130
Transportation	Chris Gray	(202) 586-8995

February 1988 Feature Article	Irvin Chamberlain	(202) 586-9594
-------------------------------------	-------------------	----------------

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Contents

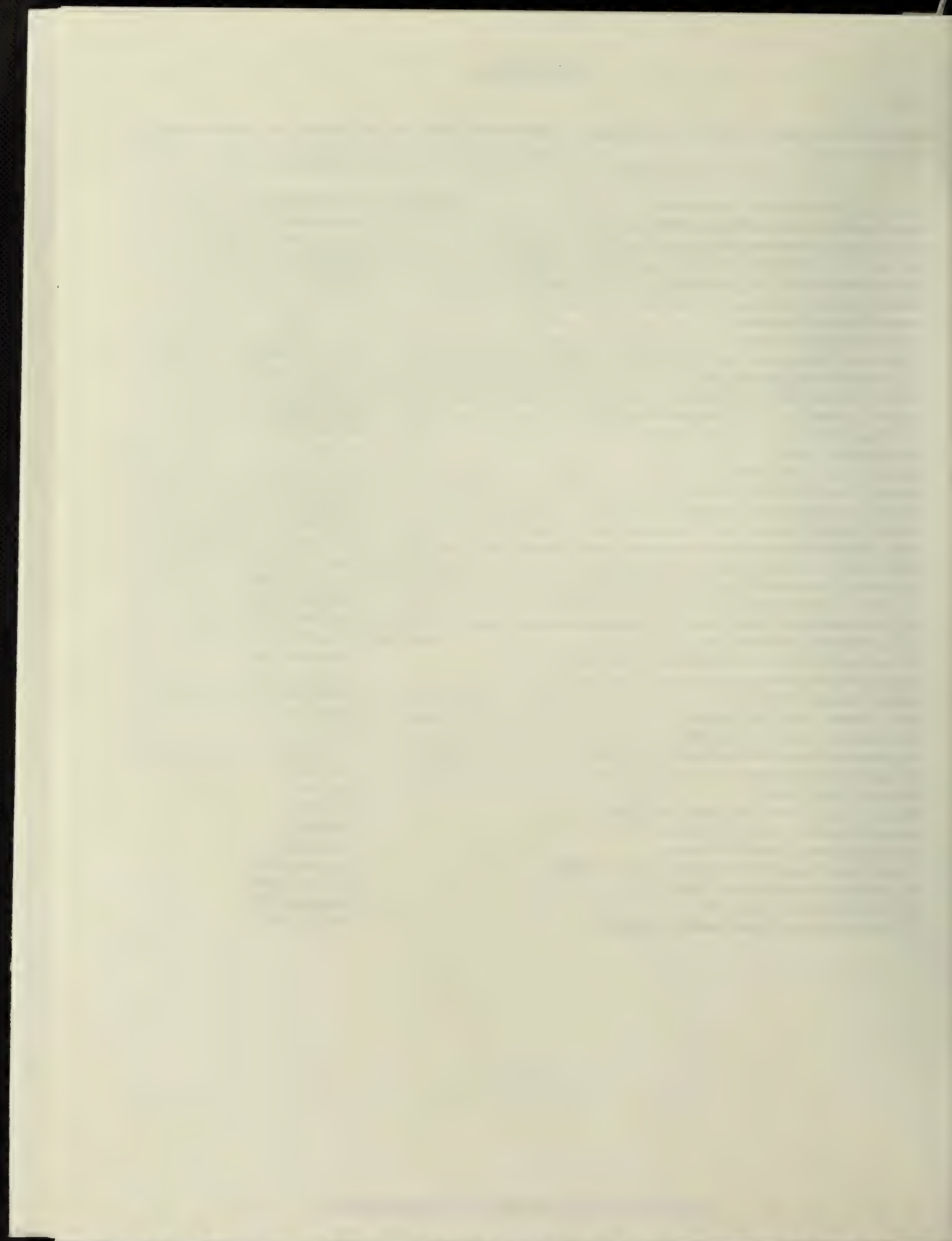
	Page
Highlights	xi
Petroleum Focus	
Petroleum Supply Summary	xix
Motor Gasoline Trends Through 1987	xxi
Tables	
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview	2
S2. Crude Oil Supply and Disposition	6
S3. Crude Oil and Petroleum Product Imports	8
S4. Finished Motor Gasoline Supply and Disposition	11
S5. Distillate Fuel Oil Supply and Disposition	13
S6. Residual Fuel Oil Supply and Disposition	15
S7. Liquefied Petroleum Gases Supply and Disposition	17
S8. Other Petroleum Products Supply and Disposition	18
Sources of Summary Statistics	19
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I	28
7. PAD District II	29
8. PAD District III	30
9. PAD District IV	31
10. PAD District V	32
Production of Crude Oil	
11. Production of Crude Oil (Including Lease Condensate) by PAD District and State	33
Natural Gas Processing	
12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District	34
Refinery Operations	
13. Refinery Input of Crude Oil and Petroleum Products by PAD District	35
14. Refinery Production of Petroleum Products by PAD District	36
15. Percent Refinery Yield of Petroleum Products by PAD District	37
Imports of Crude Oil and Petroleum Products	
16. Imports of Crude Oil and Petroleum Products by PAD District	38
17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District	39
18. Imports of Crude Oil and Petroleum Products by Source and PAD District	40
19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District	45
Exports of Crude Oil and Petroleum Products	
20. Exports of Crude Oil and Petroleum Products by PAD District	50
21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District	51
22. Exports of Crude Oil and Petroleum Products by Destination	52
23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination	54

	Page
Stocks	
24. Stocks of Crude Oil and Petroleum Products by PAD District	56
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	61
Movements of Crude Oil and Petroleum Products	
26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	62
27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts	63
28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts	63
29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	64
Residual Fuel Oil by Sulfur Content	
30. Production of Residual Fuel Oil by Sulfur Content by PAD District	65
31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District	65
32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content ...	65
33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin	66
34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry	67
Illustrations	
S1. Petroleum Overview	4
S2. Petroleum Products Supplied	4
S3. Crude Oil Supply and Disposition	5
S4. Crude Oil Ending Stocks	5
S5. Finished Motor Gasoline Supply and Disposition	10
S6. Motor Gasoline Ending Stocks	10
S7. Distillate Fuel Oil Supply and Disposition	12
S8. Distillate Fuel Oil Ending Stocks	12
S9. Residual Fuel Oil Supply and Disposition	14
S10. Residual Fuel Oil Ending Stocks	14
S11. Liquefied Petroleum Gases Supply and Disposition	16
S12. Liquefied Petroleum Gases Ending Stocks	16
Appendices	
A. District Descriptions and Maps	71
B. Explanatory Notes	73
C. Impact of Resubmissions on Major Series, 1987	88
Glossary	
Definitions of Petroleum Products and Other Terms	93

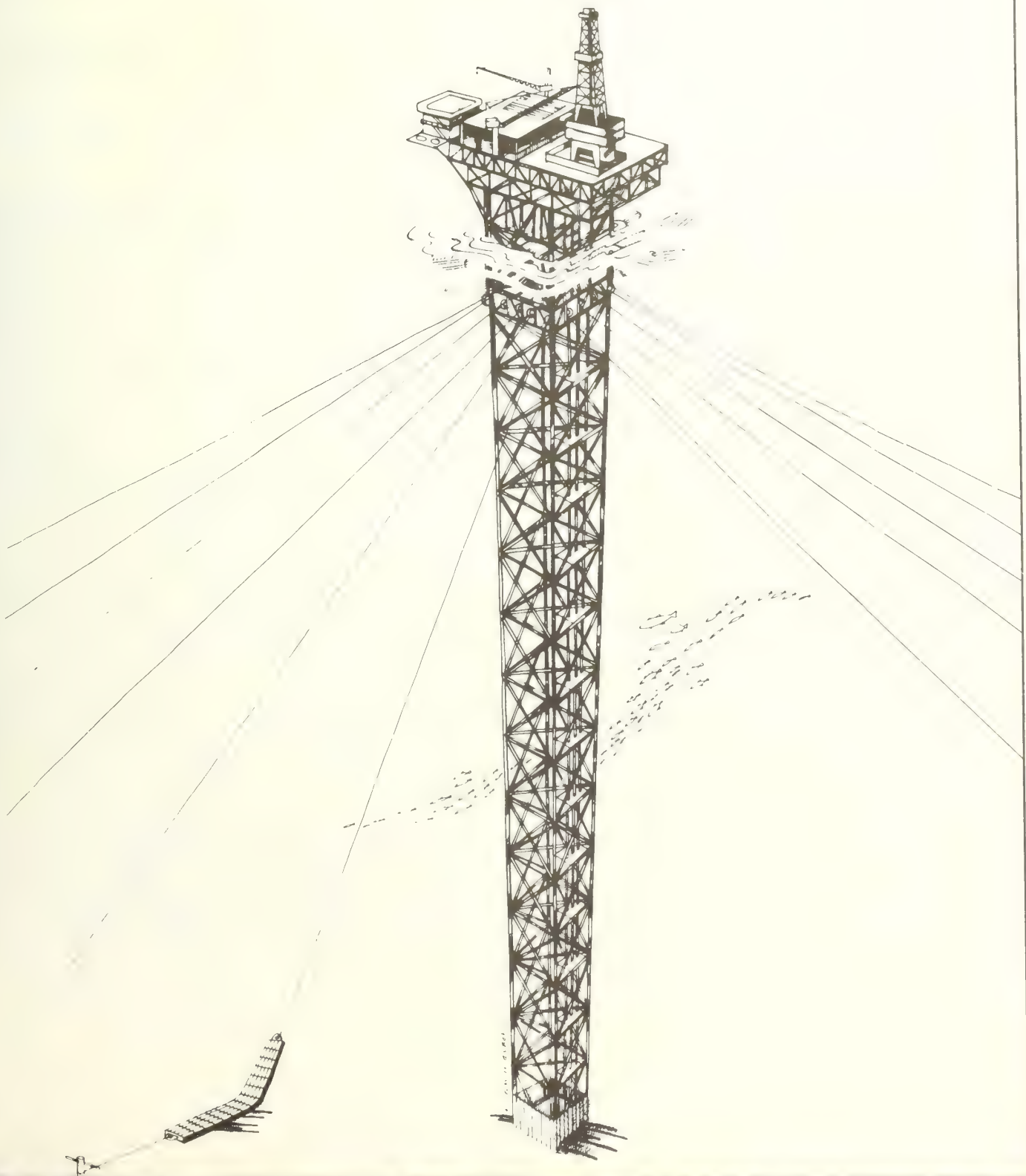
Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1985
Motor Gasoline Outlook for Summer 1985	February 1985
Refinery Capacity Trends and Outlook	March 1985
Mid-Year Petroleum Review	May 1985
Timeliness and Accuracy of Petroleum Supply Data	June 1985
Distillate Fuel Oil Trends	July 1985
World Oil Price and Inventory Cycles	August 1985
Petroleum Storage Technology	August 1985
Comparison of Independent Statistics on Petroleum Supply	September 1985
U.S. Petroleum Developments: 1985	November 1985
Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988



Highlights





Highlights

Total U.S. demand for petroleum products during February 1988 averaged about 17.6 million barrels per day, 0.9 million barrels per day above the average of a year earlier. This marks the third consecutive month in which total product supplied has exceeded 17.0 million barrels per day. For the most part, the disposition of the major products continued to follow seasonal patterns.

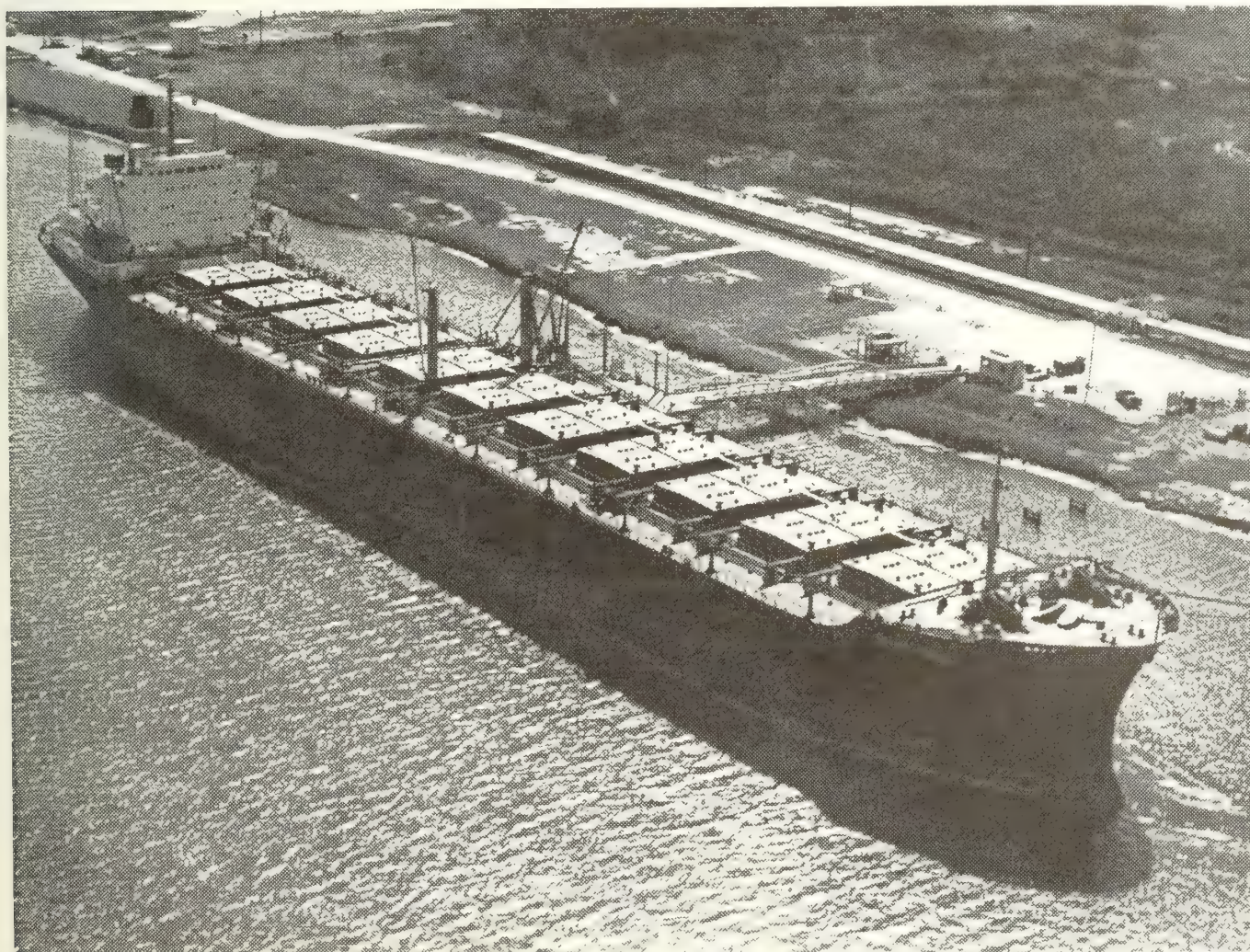
Other February 1988 highlights include the following:

- Total products stocks dropped by 26.0 million barrels to 683.1 million barrels.
- Refinery utilization fell from January's 82.8 percent rate to 81.1 percent.

- Crude oil imports from Saudi Arabia rose to 1.2 million barrels per day, 0.4 million barrels per day above the average for January.

Product Supplied

Unusually mild weather, especially in the Mid-Atlantic States and New England, kept deliveries of both distillate and residual fuel oil virtually unchanged from January's high seasonal levels, although both were still well above the levels for these products the same time last year. (See Table H1.) Distillate demand averaged 3.5 million barrels per day in February, five percent above the February 1987 average. Residual fuel oil



Imports of crude oil into the U.S. (excluding SPR) averaged over 4.6 million barrels per day in February, about 1.2 million barrels of which came from Saudi Arabia. Shown above is a crude carrier discharging its load of foreign crude oil at Nederland, Texas. The oil from this tanker is destined for the nation's Strategic Petroleum Reserve.

demand was 1.6 million barrels per day this month, nine percent greater than a year ago. Part of this increase in demand from the previous year reflects the improved competitive position of residual fuel oil in some utility and industrial markets, mostly due to increases in natural gas prices starting in the fourth quarter of 1987. With refinery production of distillate down 0.3 million barrels per day in February (to 2.7 million barrels per day), stocks were drawn down at a rate of 0.6 million barrels per day, about 0.4 million barrels per day greater than in January. Such large production declines and stock drawdowns are normal for distillate at this time of year. Residual fuel oil production, imports and stock withdrawal were little changed from January's levels.

After dropping 0.6 million barrels per day in January, deliveries of motor gasoline rebounded in February. From 6.7 million barrels per day in January, motor gasoline demand rose 0.3 million barrels per day in February to 7.0 million barrels per day. This is also about 0.3 million barrels per day, or four percent, ahead of the daily average of a year ago. Motor gasoline production and imports levels showed only small differences from January, but stocks -- which grew at a rate of 0.4 million barrels per day in January -- increased at just a 0.1 million barrels per day rate of increase during February.

Propane demand decreased in February, reflecting a normal shift in the consumption pattern for this product. Deliveries of propane dropped over 0.1 million barrels per day in February to 1.2 million barrels per day. However, this is still eight

percent greater than in February 1987. Much of the year-to-year increase observed in propane demand over the last few years has come from the petrochemical sector.

Product Stocks Fall

Total stocks of petroleum products plunged 26.0 million barrels in February to end the month at 683.1 million barrels. Distillate and propane stocks experienced the largest drawdowns. Together, these two products account for 92 percent of the total drop in product inventories, with distillates alone accounting for 67 percent. Between January and February, end-of-month stocks of distillate fell 17.5 million barrels to 109.6 million barrels. While significantly lower than February 1987 distillate inventories, this is still in line with the volume reported two years ago. The magnitude of the stock drawdown in distillates this month, which is consistent with seasonal trends, can be attributed in large part to the 0.3 million barrels per day drop in production for this product.

Propane stocks during February fell by 6.2 million barrels, finishing the month at 30.2 million barrels. Though relatively large, this stock decrease represents a slower rate of drawdown than that which occurred during January. The stock drawdown in February about equaled the drop in propane demand at 0.2 million barrels per day.

Table H1. Production, Imports, Product Supplied and Stock Change¹: January 1988 and February 1988
(Million Barrels per Day)

Category	January 1988				February 1988				Difference (February minus January)			
	Production	Imports	Product Supplied	Stock Change	Production	Imports	Product Supplied	Stock Change	Production	Imports	Product Supplied	Stock Change
Motor												
Gasoline	6.7	0.3	6.7	-0.4	6.7	0.4	7.0	-0.1	(s)	(s)	0.3	0.3
Distillate	3.0	0.4	3.5	0.2	2.7	0.3	3.5	0.6	-0.3	(s)	(s)	0.4
Residual	1.0	0.7	1.6	(s)	1.0	0.8	1.6	(s)	(s)	(s)	(s)	(s)
Propane	0.9	0.1	1.3	0.4	0.9	0.1	1.2	0.2	(s)	(s)	-0.1	-0.2
Total Products	16.4	2.3	17.2	0.3	16.1	2.3	17.6	0.9	-0.3	(s)	0.4	0.5

¹ A positive number indicates a stock decrease and a negative number indicates a stock increase.

(s) Less than 50,000 barrels per day.

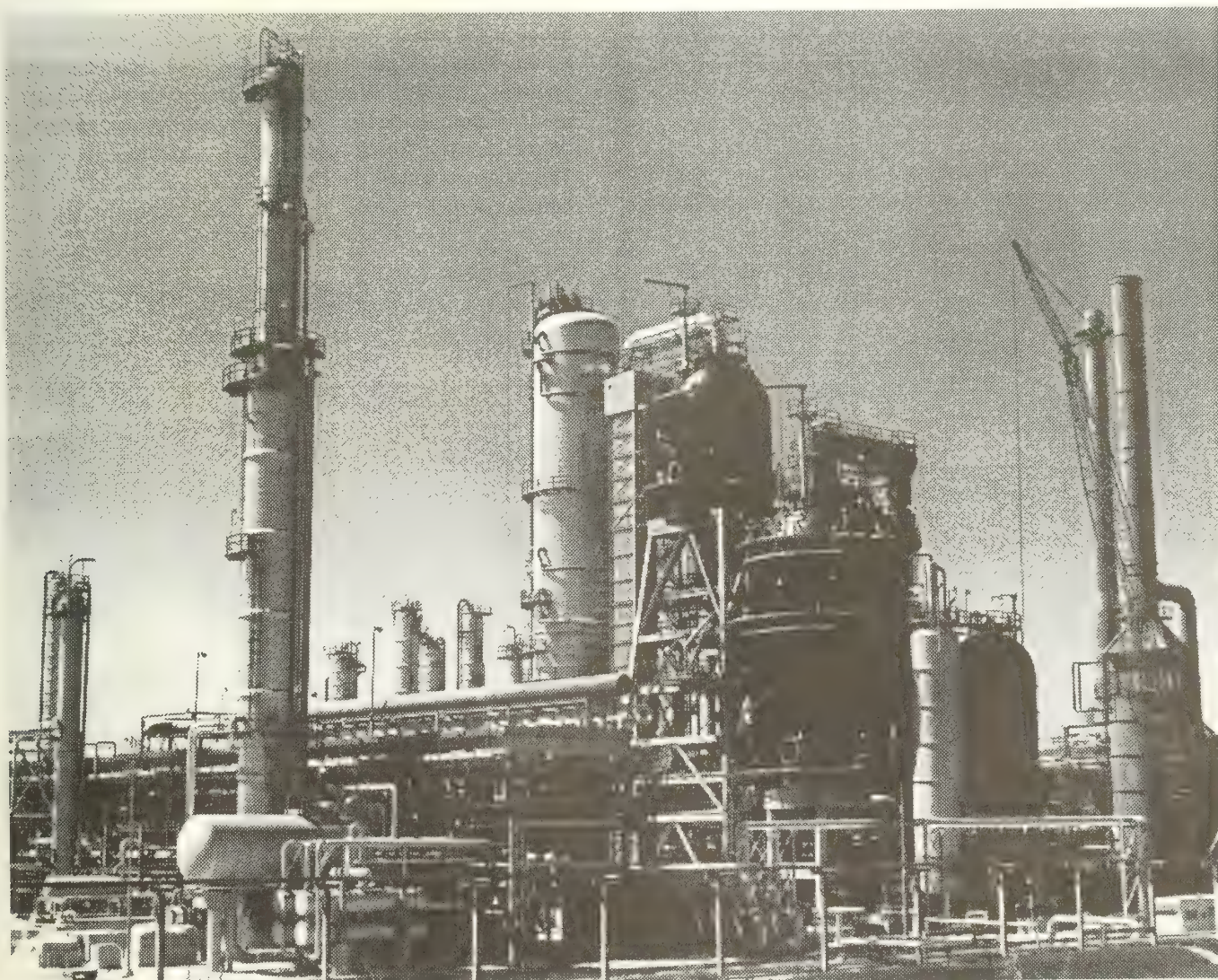
Note: Components may not add due to independent rounding.

Refinery Activity Slows

Refinery utilization, which slowed somewhat in January, showed a further decrease in February. From a refinery utilization rate of 82.8 percent in January, utilization dropped to 81.1 percent in February, largely because of an almost 0.3 million barrels per day decrease in gross refinery inputs. Gross inputs to distillation units averaged 12.9 million barrels per day in February while operable capacity remained steady at 15.9 million barrels per day. Activity at downstream processing units showed little change in February. Inputs of fresh feed to catalytic cracking, catalytic hydrocracking and coking units averaged nearly 6.6 million barrels per day, the same as in January.

Saudi Crude Oil Imports Up

The recent growth witnessed in crude oil imports from Saudi Arabia has pushed these volumes to their highest level since the early 1980s. Imports of crude oil from Saudi Arabia averaged 1.2 million barrels per day in February, 0.4 million barrels per day above January's level. This is the third monthly increase in Saudi Arabian crude oil deliveries since November 1987, when Saudi Arabian volumes to the U.S. averaged just over 0.5 million barrels per day. The favorable terms provided by Saudi Arabia to its Aramco partners and other U.S. buyers this past winter in an effort to maintain full output in the face of market uncertainty are largely responsible for the jump in Saudi deliveries in February.



Refinery utilization fell again in February, averaging 81.1 percent for the month. Gross inputs to distillation units averaged 12.9 million barrels per day in February. Shown is part of the Standard Oil Company Alliance Refinery Complex in Belle Chasse, Louisiana.

Alaskan Crude Oil

Crude oil production in Alaska got a major boost with the opening of the Endicott field in October 1987. Since November, Alaska's production has been at least 2 million barrels per day, about equal to production in Texas. Alaska's present level of production is likely to last only a few years, as production from its two largest fields is expected to decline rapidly in the early 1990's.¹ Prospects for finding comparable reserves to replace Alaska's older fields by the end of the century hinge on the resolution of controversies regarding development in the coastal plain of the Arctic National Wildlife Refuge. Despite the problems surrounding the development of Alaska's crude oil potential, its crude oil markets are expanding because of changes in U.S. laws.

Endicott Field

The Endicott field represents a continuation of Alaska's unique oil history. It is the world's first arctic offshore field for

¹ *Oil and Gas Journal*, December 15, 1986, pp. 15 and 16.

commercial production, and its production capacity of about 100 thousand barrels per day makes it the third largest producing field in the United States, behind Prudhoe Bay and Kuparuk fields. Prudhoe Bay field began producing in 1977; Kuparuk field in 1981. For each of these three fields, about 10 years elapsed between discovery and production, primarily because of the harsh climatic conditions of Alaska's frontier, and the need to resolve environmental and ethnological issues before development could be completed.

South Alaskan and North Slope Production

The major Alaskan producing fields are located on the North Slope in the area of Prudhoe Bay (Figure H1). Before 1977, however, only South Alaska's Kenai and Cook Inlet areas produced crude oil. When Alaska attained statehood in 1959, crude oil production from these fields amounted to about 500 barrels per day. South Alaska production peaked in 1973 at 198 thousand barrels per day, and is now about 44 thousand barrels per day.



The Trans Alaskan Pipeline System carries heated crude oil 800 miles across Alaska from the Prudhoe Bay fields to the port of Valdez.

Figure H1. Alaska: Major Producing Areas and Crude Oil Flow



Crude oil from Alaska's North Slope began entering the U.S. energy supply when the Trans Alaska Pipeline System opened in June 1977. The pipeline carried crude oil from the newly opened Prudhoe Bay field, the largest in North America. With a throughput capacity of 1.6 million barrels per day, the Trans Alaska Pipeline transports crude oil from North Slope fields to the port of Valdez. From Valdez, the oil is shipped to other points in the United States (Figure H2) or exported to U.S. territories. Crude oil production from North Slope fields grew from 310 thousand barrels per day in 1977 to 1.9 million barrels per day in 1987, and is expected to be over 2 million barrels per day in 1988. The Trans Alaska Pipeline can

transport these volumes through the use of a drag-reducing agent in the line.

Exports From Alaska

Crude oil from certain Cook Inlet fields was exported to countries other than U.S. territories for the first time in 1987. The Export Administration Regulations were modified in June, 1986 to allow such exports, after a November 1985

determination by the Secretary of Commerce that the export of crude oil derived from State waters in Cook Inlet is consistent with the national interest and the purposes of the Energy Policy and Conservation Act.²

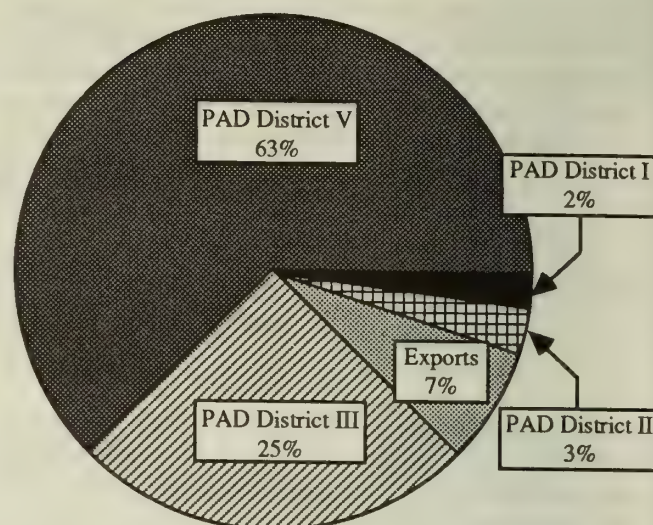
Restrictions on the export of Alaskan North Slope crude oil to Canada will be partially lifted if the U.S.-Canada free trade agreement recently signed by President Reagan and Prime Minister Mulroney is approved by the U.S. Congress and the Canadian Parliament. At present, only crude oil from certain Cook Inlet fields can be exported. The agreement will provide Canada access to a maximum of 50,000 barrels per day of Alaskan North Slope crude oil, under the condition that it is transported on U.S. flag ships via the continental United States.

Approximately 6 percent of the crude oil produced in Alaska is refined at Alaskan facilities. Distillate and residual fuel oil, motor gasoline, and jet fuel are the primary finished products produced at Alaskan refineries. About 25 percent of Alaska's finished products were exported in 1987, primarily to Japan, Australia, and Korea.

Arctic National Wildlife Refuge

Prospects for further large crude oil discoveries in Alaska center on the coastal plain of the Arctic National Wildlife Refuge (ANWR). This area has the potential to replace production from the Prudhoe Bay³ and Kuparuk fields, both expected to rapidly decline in the early 1990's. Development of this area is controversial because of the possible pollution problems and damage to fish and wildlife. On the other hand,

Figure H2. Deliveries of Alaskan Crude Oil in 1987



1,961 Thousand Barrels per Day

Sources: Energy Information Administration, *Petroleum Supply Monthly*, February 1988, DOE/EIA-0109 (88/02), Table 11; and U.S. Department of Transportation, Maritime Administration.

development of the ANWR coastal plain could substantially increase U.S. oil and gas reserves, thus providing economic and national security benefits.⁴ If the ANWR coastal plain is opened for exploration, at least 10 years would be required for development to be complete.

² For a detailed discussion of crude oil exports from Cook Inlet see "U.S. Exports," *Petroleum Supply Monthly*, August 1987, DOE/EIA-0109 (87/08) pp.xxii and xxiii.

³ U.S. Department of Energy, *Energy Security: A Report to the President of the United States*, March 1987, p.56.

⁴ *Petroleum Economist*, January 1987, p.36.

Petroleum Focus





Petroleum Supply Summary

(Million Barrels per Day)

	March			Cumulative January Through March		
	1988	1987	% Change	1988	1987	% Change
Products Supplied						
Motor Gasoline	7.2	6.9	4.0	7.0	6.7	3.8
Distillate Fuel Oil	3.4	3.0	14.5	3.5	3.2	9.1
Residual Fuel Oil	1.3	1.2	2.7	1.5	1.4	6.8
Other Products	5.3	4.8	10.0	5.4	5.0	6.8
Total	17.1	16.0	7.4	17.3	16.3	5.9
Crude Inputs to Refineries	13.0	12.1	7.9	12.9	12.3	4.8
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	10.0	10.0	-5	10.0	10.1	-1.1
Imports						
Crude Oil ²	4.8	3.6	32.0	4.7	3.9	18.7
SPR	(s)	.1	-66.1	(s)	.1	-36.8
Products	1.8	1.9	-2.4	2.1	1.9	13.9
Total	6.7	5.6	18.8	6.9	5.9	16.5
Export						
Crude Oil	.2	.2	31.3	.2	.2	5.8
Products	.8	.6	36.6	.7	.7	9.1
Total	1.0	.7	35.4	.9	.8	8.4
Stock Withdrawal						
Crude Oil ²	-.1	(s)	-	(s)	(s)	-
Products	.7	.3	-	.6	.5	-
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	545	520	4.8	-	-	-
Other	350	333	4.9	-	-	-
Total	895	853	4.8	-	-	-
Products						
Motor Gasoline ³	231	249	-7.3	-	-	-
Distillate Fuel Oil	92	110	-16.4	-	-	-
Residual Fuel Oil	44	40	10.0	-	-	-
Other	299	309	-3.0	-	-	-
Total	666	708	-5.9	-	-	-
Total Crude Oil and Products	1,561	1,561	-.1	-	-	-

¹ Includes alcohol and other hydrocarbon liquids.

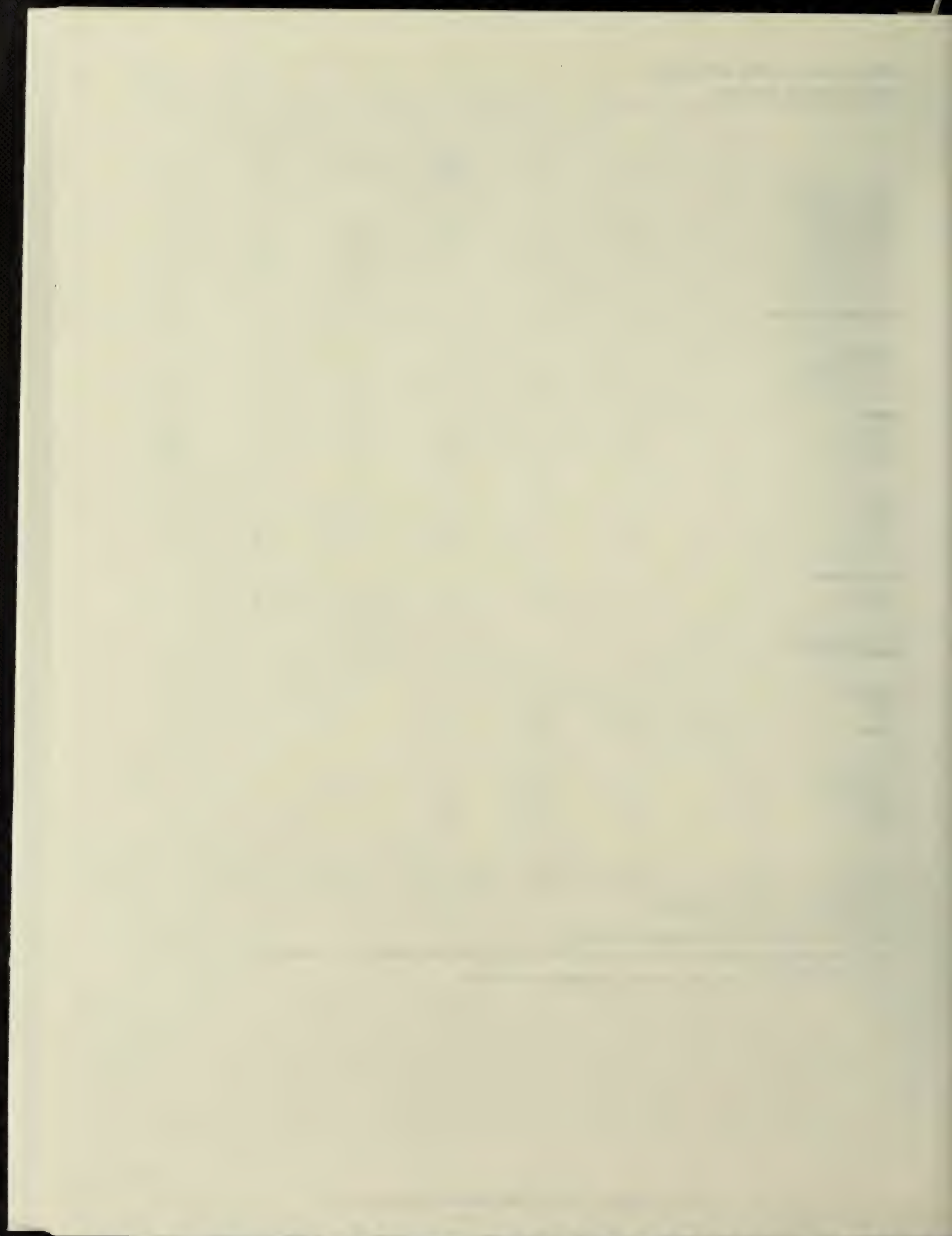
² Excludes Strategic Petroleum Reserve (SPR).

³ Including blending components.

(s) = Less than 0.05 million barrels per day/or less than 0.05 percent.

Note: Percent changes are based on unrounded values. March 1988 data are estimates based on weekly data. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, February 1988.



Motor Gasoline Trends Through 1987

by Irvin Chamberlain

In 1987, average demand for motor gasoline rose 2.1 percent after climbing almost 3 percent in 1986. Gasoline prices, which had not increased for 5 years, rose by 3 percent in 1987. The factors affecting these movements as well as supply trends will be examined in this article.

Motor Gasoline Demand

Motor gasoline demand (measured as product supplied) increased for the fifth consecutive year to average 7.2 million barrels per day in 1987. This 1987 gasoline demand remains 3 percent below the demand in the peak year of 1978. In 1987, motor gasoline accounted for 67 percent of the transportation sector petroleum demand; this was the same percentage share as in 1986.¹ Motor gasoline's 1987 share of total petroleum demand also remained essentially unchanged from 1986 at about 44 percent. In 1978, motor gasoline demand accounted for 39 percent of total petroleum product demand.

Four primary factors influence motor gasoline demand. The amount of automobile travel, measured as vehicle miles traveled (VMT), and vehicle efficiency, measured as miles per gallon (MPG), are two major factors. Gasoline demand is directly proportional to VMT, but is reduced by growth in vehicle MPG. Other factors operating on gasoline demand are gasoline price movements and overall shifts in the economy measured in terms of the indicators Gross National Product (GNP), personal income levels, and industrial production.

The VMT for 1987 rose an estimated 3.7 percent, as compared with a rise of 4.7 percent in 1986. This decrease in growth rate can be partially attributed to the 2.8 percent increase in gasoline prices during 1987, in contrast to the 22 percent price decrease experienced during 1986. The increase in the speed limit to 65 miles per hour in 33 States also contributed to the 1987 increase in gasoline demand.

The National Highway Traffic Safety Administration lowered the 1986 and 1987 Corporate Average Fuel Economy (CAFE) MPG standards for automobiles. As in 1986, automobile manufacturers met the revised standards for the 1987 model year. For the first time since 1982, new car sales declined in 1987; the 10.4 million cars sold represents a reduction of 7 percent from 1986 (Table FE1). Although the smallest number of new cars entered the overall fleet since 1984, the overall fleet MPG did rise by 1.8 percent in 1987. This rise occurred in spite of consumers keeping their automobiles an average of 7 years, indicating that continued efficiency improvements have offset steadily increasing fleet age.²

Of the three major economic indicators, only one changed substantially during 1987. The growth rate in the index of industrial production about doubled from its 1986 level to 4.0 percent. The GNP growth rate remained about the same as in 1986 at 2.7 percent, and real disposable income rose only 1.0 percent.

Domestic automobile sales in 1987 continued the decreasing trend, dropping 9 percent from 1986, while imported automobile sales remained essentially unchanged from 1986. As in 1986, diesel automobile sales again were less than 1 percent of all automobile sales. Light truck sales rose by 1 percent over the previous year's sales. This 1 percent rise in sales was the smallest increase since light truck sales began their upward climb in 1982 (Table FE1).

Unleaded gasoline sales continued to climb throughout 1987 to capture about 76 percent of the total gasoline market. Unleaded sales averaged 5.4 million barrels per day in 1987, compared with 4.9 million barrels per day in 1986. Although leaded gasoline sales continue to decrease, it does appear that leaded gasoline will remain available for sale in the near future. Recently, the Environmental Protection Agency (EPA) set aside the regulations which would have prohibited

¹ U.S. Department of Transportation, Federal Highway Administration, *Selected Highway Statistics and Charts*, 1986. U.S. Department of Commerce, *U.S. Foreign Trade Bunker Fuels*, January 1987 - December 1987.

² Oak Ridge National Laboratory, *Transportation Energy Data Book*: Edition 9, p. 2-16.

Note: Unless otherwise noted, data in this article are based on information published in the *Petroleum Supply Monthly*, DOE/EIA-0109, *Petroleum Marketing Monthly*, DOE/EIA-0380, *Weekly Petroleum Status Report*, DOE/EIA-0208, and the *Monthly Energy Review*, DOE/EIA-0035. All data through 1986 are considered final and are not subject to further revision. Data for 1987 are preliminary and will be revised and published at a later date in the *Petroleum Supply Annual*, 1987, DOE/EIA-0340, Volumes 1 and 2.

lead in gasoline, leaving open the possibility that lead suppliers will stay in the market.

From 1986 to 1987, unleaded gasoline sales as a percentage of total gasoline sales increased in each Petroleum Administration for Defense (PAD) District as follows:

PAD District	1986	1987
	(percent)	
I (East Coast)	76	82
II (Midwest)	66	74
III (Gulf Coast)	67	69
IV (Rocky Mountain Area)	54	61
V (West Coast)	67	71

For the Gulf and West Coasts, regional gasoline demand in 1987 remained the same as in 1986; each was 17 percent of total national consumption. Rocky Mountain area consumption remained at 3 percent. The East Coast rose from 32 to 34 percent, while the Midwest dropped from 31 to 29 percent.

Summer demand in 1987 rose by 1.5 percent from 1986 levels.

Motor Gasoline Supply

Domestic refineries and blending plants supplied 6.8 million barrels per day of finished motor gasoline, or 95 percent of motor gasoline supplied during 1987. Net imports (imports

minus exports) provided most of the balance. Stock withdrawals during 1987 averaged 15,000 barrels per day. Crude oil supplies were sufficient throughout 1987.

Total refinery production increased by 1 percent over 1986 levels, yet still remained 5 percent under the peak 1978 level of 7.2 million barrels per day. Operable crude oil distillation capacity averaged 15.7 million barrels per day during 1987, up from an average of 15.5 million barrels per day during 1986. Moderate increases in gross inputs to refineries occurred, rising from 12.8 million barrels per day in 1986 to 13.0 million barrels per day in 1987. Refinery utilization, which rose by 5.3 percent from 1985 to 1986, remained relatively unchanged in 1987 at the 1986 rate of about 83 percent. During 1987, four refineries were reactivated while seven were shut down.

Resuming the upward trend that prevailed from 1981 through 1985, finished motor gasoline imports rose by 12 percent over 1986 to 366,000 barrels per day. Venezuela, Brazil, the Virgin Islands, and the Netherlands accounted for 52 percent of all finished motor gasoline imports. Unleaded motor gasoline imports in 1987 rose by 24 percent to 331,000 barrels per day (Figure FE1). This comprised 90 percent of all finished gasoline imports. Both leaded gasoline and blending components imports dropped from their 1986 levels; leaded gasoline from 59,000 to 35,000 barrels per day and blending components from 72,000 to 61,000 barrels per day. The leading countries of origin for blending components were, as in 1985 and 1986, Romania and the People's Republic of China. Gasoline exports rose slightly above their 1986 level, averaging 36,000 barrels per day in 1987.

Table FE1. Sales Volume and Fuel Efficiency of Light Duty Vehicles

Model Year	New Automobiles			New Light Trucks			Total New Vehicles	
	Number Sold	Market Share ¹	Fuel Efficiency ²	Number Sold	Market Share ¹	Fuel Efficiency ²	Number Sold	Fuel Efficiency ²
1978	11,083,109	79.0	19.7	2,941,180	21.0	17.2	14,024,289	19.1
1979	10,788,257	79.4	20.5	2,801,163	20.6	16.5	13,589,420	19.5
1980	9,094,506	80.4	23.2	2,216,537	19.6	19.1	11,311,043	22.0
1981	8,879,865	82.1	25.3	1,935,416	17.9	19.8	10,815,281	24.1
1982	7,658,171	78.2	26.3	2,132,840	21.8	20.2	9,791,011	24.6
1983	8,770,413	76.5	26.1	2,687,299	23.5	20.5	11,457,712	24.5
1984	10,211,058	73.9	26.3	3,612,934	26.1	20.1	13,823,992	24.3
1985	10,968,515	72.1	27.0	4,235,365	27.9	20.4	15,203,880	24.8
1986	11,097,757	71.0	27.9	4,534,693	29.0	20.7	15,632,450	25.3
1987	10,372,015	69.4	28.2	4,580,036	30.6	21.0	14,952,051	26.0

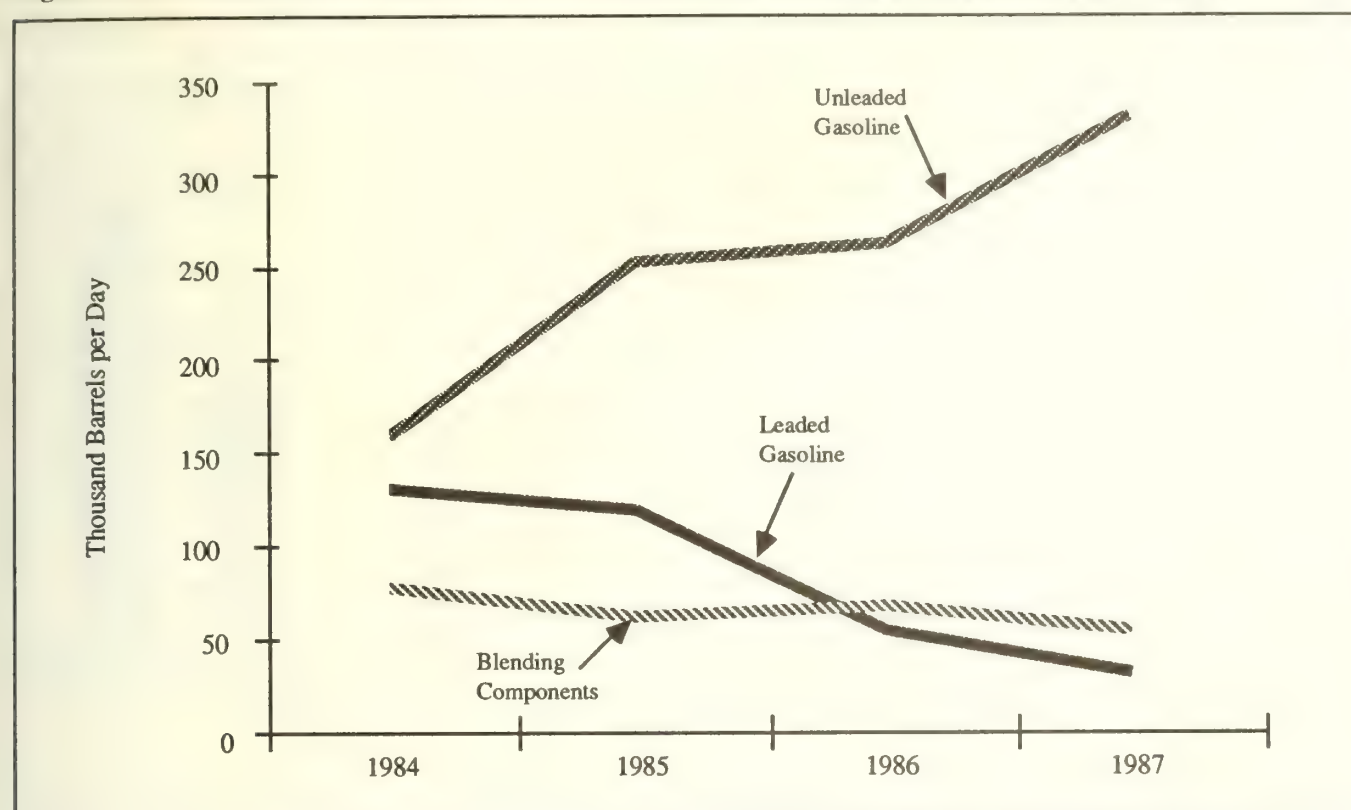
¹Market share is given as the percentage of total new vehicles sold for the model year indicated.

²Fuel efficiency (sales-weighted) is given in average miles driven per gallon fuel consumed.

Note: Data are included for both domestic and imported light duty vehicles, as well as for diesel automobiles, which accounted for less than 1 percent of 1987 new car sales.

Source: Oak Ridge National Laboratory, Motor Vehicle MPG and Market Shares Report: Model Year 1987.

Figure FE1. Imports of Finished Motor Gasoline and Blending Components, 1984-1987



Sources: Energy Information Administration, *Petroleum Supply Annual*, Vol. 1, 1984, 1985, and 1986, DOE/EIA-0340, Table 2. *Petroleum Supply Monthly*, December 1987, DOE/EIA-0109(87/12), Table 3.

Stock levels of motor gasoline followed the customary patterns of previous years by increasing during the colder periods of the year and being drawn down during the spring and summer, the periods of higher driving activity. To prepare for anticipated summer demand in 1987, January through June stocks rose to higher levels than existed from January through June in 1986. This increase in stocks occurred in spite of a rise in demand of nearly 3 percent over the first 6 months of 1986. However, the 1987 increase in summer demand was a moderate 1.5 percent over 1986. Considering only the fourth quarter, inventories were lower in 1987 than in 1986 as 1987 demand rose nearly 2 percent above the 1986 level.

Motor Gasoline Prices

Various factors influence motor gasoline prices at the retail level. Primary among them are demand on the part of consumers, as well as the supply and price of crude oil. National and local taxes also affect the pump price.

Gasoline prices during 1987 reversed a trend that existed during the previous 5 years, when gasoline prices had mirrored the decline in crude oil prices.

Crude oil prices, measured by the composite refiner acquisition cost in current dollars, fell from an average of \$35.24 per barrel in 1981 to a low of \$14.55 per barrel in 1986 (Table FE2). The 1987 average price of crude oil rebounded from the 7-year low reached in 1986. In 1987, crude oil averaged \$17.91 per barrel, an increase of 23 percent over the 1986 price. However, the 1987 retail price of motor gasoline rose only 3 percent to average \$0.96 per gallon. The crude oil price rise throughout 1987 was not fully passed through to gasoline consumers. Measured in constant dollars, the refiner acquisition cost rose only 20 percent from 1986 to 1987, while the average retail gasoline price essentially showed no change.

Gasoline demand during the summer months of 1987 (June, July, and August) rose by 1.5 percent from 1986 levels. Retail motor gasoline prices averaged \$0.98 per gallon for the 3-month period, a 9-percent rise from the average price of \$0.90 per gallon in the summer of 1986.

Gasoline price movement during the summer driving season coincided with price movement in crude oil acquisition cost. During the period January through May 1986, the refiner acquisition cost declined 49 percent. The June 1986 average gasoline price of \$0.96 per gallon fell to \$0.85 per gallon by August, an 11-percent decrease. During the corresponding periods in 1987, the refiner acquisition cost rose by 10 percent, while the summer retail gasoline price rose by 4 percent.

The relationship between gasoline price and product supplied varied over three consecutive periods. Figure FE2 depicts the percentage change in the monthly average price and product supplied from April to August for the years 1985, 1986, and 1987. During the period April through August 1985, both retail price and product supplied rose, by 1.9 percent and 4.1 percent, respectively. The data indicate that 1986 was a year of change. The August 1986 price was 5.5 percent below the April price, while demand grew 4.6 percent, about the same demand change as in 1985 when gasoline prices increased over the 5-month period. The 1987 April-through-August period experienced the largest price increase - 6.8 percent; however, demand in August 1987 was about equal to that of April 1987.

Since 1978, U.S. consumers at first experienced rising gasoline prices, peaking in 1981 at \$1.44 per gallon in constant 1982 dollars, and then a sustained period of declining prices leading to a 1987 price of \$0.82 per gallon. The price in 1987 was 9 percent lower than in 1978. The cost per mile driven over the same 1978 through 1987 period dropped 31 percent (Figure FE3). These two percentage decreases reveal that the U.S. consumer of gasoline experienced about a one-third reduction in the cost of gasoline per mile driven, compared to a one-tenth reduction in the cost per gallon of gasoline. Of importance in obtaining this 31 percent reduction in fuel cost per mile driven was the 33-percent increase in overall fleet efficiency (MPG) that took place over the same 1978-through-1987 period.

Table FE2. Refiner Acquisition Cost of Crude Oil and Retail Gasoline Price, 1978-1987

Year	Average Crude Oil Acquisition Cost ¹		Average Retail Gasoline Price ³	
	Dollars per Barrel		Dollars per Gallon	
	Current Dollars	Constant ² Dollars	Current Dollars	Constant ² Dollars
1978	12.46	17.25	0.65	0.90
1979	17.72	22.54	0.88	1.12
1980	28.07	32.75	1.22	1.42
1981	35.24	37.49	1.35	1.44
1982	31.87	31.87	1.28	1.28
1983	28.99	27.93	1.23	1.18
1984	28.63	26.58	1.20	1.11
1985	26.75	24.06	1.20	1.08
1986	14.55	12.75	0.93	0.82
1987	17.91	15.24	0.96	0.82

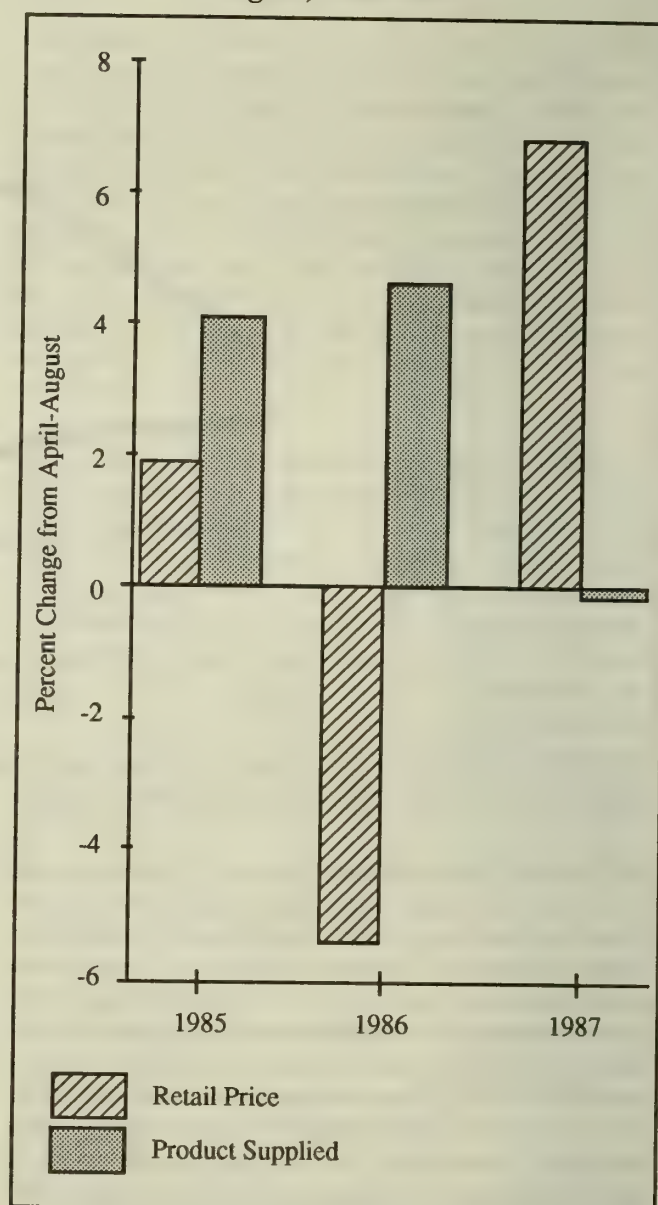
¹Average refiner acquisition cost of domestic and imported oil combined.

²Adjusted by the GNP price deflator (1982 = 100).

³U.S. city average for all types as calculated by Bureau of Labor Statistics. Includes taxes. Since September 1981, average retail gasoline prices include gasohol prices. Unleaded premium prices are weighted more heavily.

Source: Energy Information Administration, *Monthly Energy Review*, December 1987, DOE/EIA-0035(87/12).

Figure FE2. Gasoline Retail Price and Product Supplied -- Change from April to August, 1985-1987



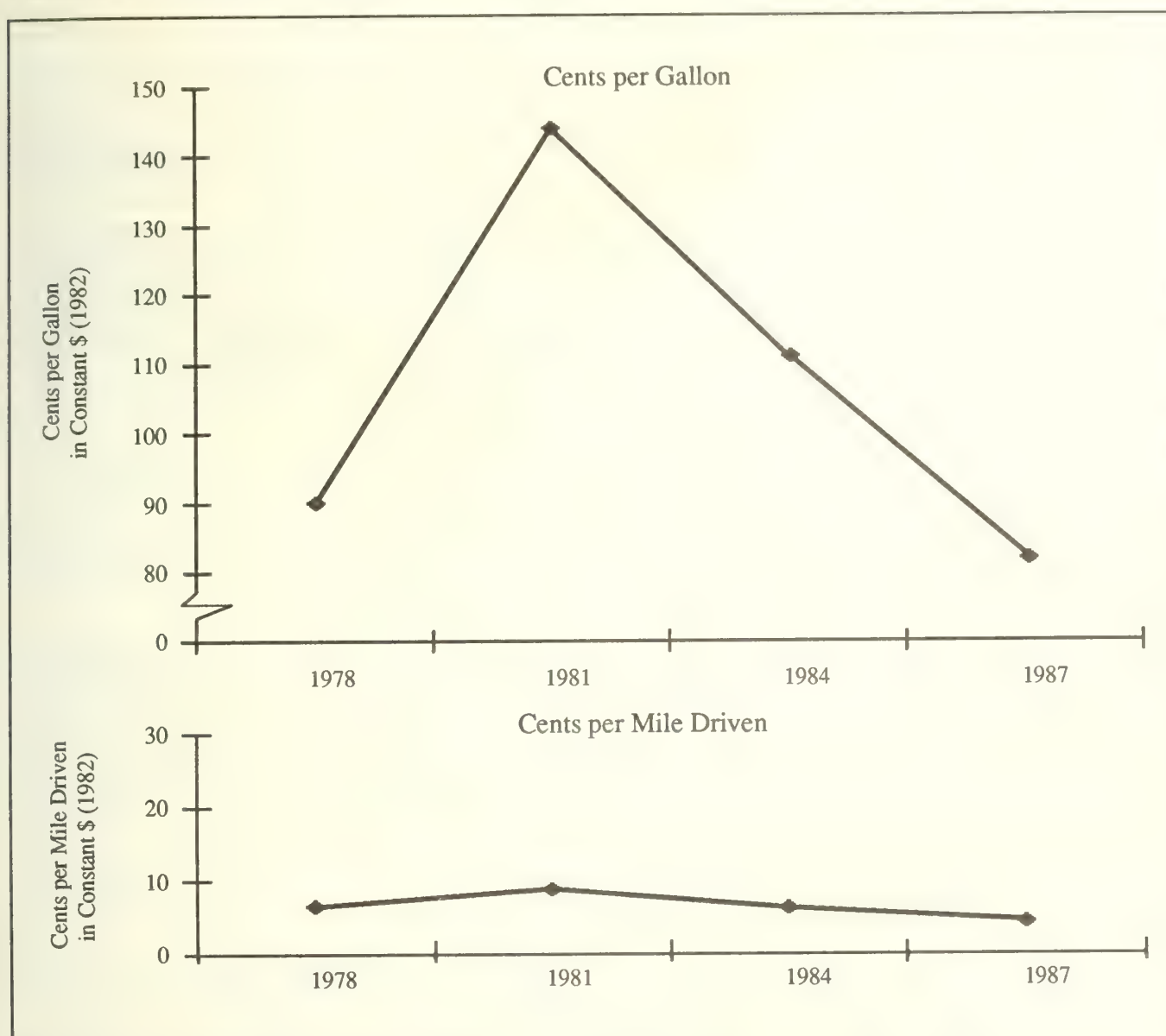
Note: This graph presents the percentage change in the monthly average (for gasoline retail price and product supplied) from April to August for the years 1985, 1986, and 1987. A positive percentage change indicates that the August average is higher than the April average.

Source: Energy Information Administration, *Monthly Energy Review*, December 1987, DOE/EIA-0035 (87/12).

A consistent factor affecting gasoline price is taxation. The Federal Government raised its gasoline excise tax in 1983 from 4 cents to 9 cents per gallon. The average State tax on gasoline increased from 8.7 cents per gallon in 1981 to 12.5 cents per gallon in 1986. From 1981 to 1986, gasoline taxes as a percent of price rose from 9.4 percent to 23.1 percent.

Gasoline taxes in 18 States were higher in the summer of 1987 than a year earlier. The biggest jumps in gasoline taxes were

Figure FE3. Gasoline Prices per Gallon and per Mile Driven



Note: Prices are based on constant 1982 dollars.

Sources: Energy Information Administration, *Monthly Energy Review*, December 1987, DOE/EIA-0035 (87/12), and *Short-Term Integrated Forecasting System*; U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*.

in Mississippi and Oklahoma, which raised taxes 6 cents per gallon. A 3-cents per gallon increase gave Montana the highest tax at 20 cents per gallon.

Motor Gasoline Outlook for Summer 1988

Motor gasoline demand should increase in the summer of 1988, as a result of a modest rise in total vehicle miles traveled.

Summer demand grew by 1.5 percent in 1987 (compared with summer 1986), and is expected to grow by about 1 percent in 1988. Gasoline prices, which were 9 percent higher during the summer months of 1987 over 1986, are expected to be lower from June through August 1988 compared with June through August 1987.

Due to lower expectations for personal income, vehicle-miles traveled should only rise between 2 and 3 percent in 1988. Average vehicle efficiency may increase by only 1 to 2 percent in 1988 which is about the same as the 1.8 percent rise in 1987. This reflects recent trends in consumer preference for larger, relatively less efficient automobiles.

Evolution in Gasoline Distribution

The United States has reached the point where virtually half the gasoline pumped at service stations is pumped by drivers. Between June 1985 and June 1987, the percentage of self-serve-only outlets has increased from 43 percent to more than 49 percent. Another aspect of the changing nature of service stations reflects the desire of motorists to be able to obtain gasoline, convenience items, and food purchases all at the same location. Monitoring this trend, marketers have designed facilities that meet all these diverse needs. As an example, a Kansas self-serve-only station has four multi-pump islands, with eight automatic fueling positions, four

automatic teller machines that accept cash and credit cards, a convenience store, and a car wash and dryer.

During 1987, U.S. refiners and marketers expanded the use of credit card ventures, often with established electronic networks. Strong emphasis has been put on the use of debit cards which are issued by banks for use by checking account customers at automatic teller machines. Each time a customer buys gasoline with a debit card, the customer's checking account is reduced by the amount of the purchase and the gasoline retailer's account is credited by the same amount. A network in Nevada currently gives customers the option of using debit cards to pay for gasoline and convenience store items and to obtain as much as \$40 cash. Debit cards are also being used in Florida, Texas, and Arizona.

Recent Alterations in Gasoline Composition and Production

The U.S. petroleum industry is faced with the problem of devising new ways to meet demand for gasoline without, at the same time, overproducing other petroleum products. The industry has devoted much time and effort to the development of processes for increasing the gasoline yield from crude oil. In order to satisfy the changing requirements for fuel quality resulting from continual changes in engine design, the industry has also had to develop other processes for improving gasoline properties, even, if necessary, at the expense of yield.

nents for high octane gasoline. The most prevalent cracking process is fluid catalytic cracking (FCC).

Another process frequently employed consists of "reforming" low octane gasoline-range hydrocarbons into higher octane hydrocarbons. Unlike the distillation and cracking processes, in catalytic reforming there is very little difference between the boiling range of the feedstock and the boiling range of the product. What does change is the chemical composition; the catalytic reformer causes the components of the naphtha feedstock to be reformed into aromatic compounds (reformates) which have much higher octane numbers. Throughout the industry, catalytic reforming is much more prevalent than thermal (noncatalytic) reforming.

Background on Processes on Gasoline Production

Petroleum refining begins with the distillation of crude oil into several major fractions. The light naphtha fraction obtained by distillation is called straight-run gasoline. This light naphtha fraction can be used as a component of finished gasoline without any more refining than is necessary to remove undesirable impurities. Heavy naphtha is catalytically reformed into higher octane blending stock. Much of the heavy gas oil and other heavy oils recovered from the reduced crudes are formed into gasoline by other processes.

Alkylation is a process which makes larger hydrocarbons from smaller ones; it produces gasoline-range liquids from refinery gases produced during the catalytic cracking process. The alkylation process consists of a direct union of a saturated and an unsaturated molecule. The major value of alkylation stems from the exceptionally high antiknock quality of alkylate, its product.

Polymerization is another process for making gasoline from refinery gases. This process differs from the alkylation process in that polymerization combines two or more unsaturated organic molecules. The polymerization process may be thermal or catalytic.

One prevalent process utilized throughout the industry consists of "cracking" higher-boiling hydrocarbons into lower-boiling hydrocarbons to produce gasoline. Straight-run heavy gas oils are subjected to heat and pressure and are treated with a catalyst to promote cracking. Suitable fractions produced by catalytic cracking make highly desirable blending compo-

Butane isomerization is the process by which refiners convert normal butane to isobutane, which is then used as feedstock in the alkylation process. The pentane/hexane isomerization process is used to increase the octane number of the light gasoline components, pentane and hexane, which are found in abundance in straight-run gasoline. Catalysts have been employed in this process since 1959.

The typical gasoline pool in the United States is generally made up of 45 percent FCC gasoline, 25 percent catalytic reformat, 10 percent light straight-run gasoline, 10 percent alkylate, 5 percent polymer gasoline, and 5 percent butanes.

Changes in the Processes

Utilization of the processes described above has been altered in recent years by 1) the requirement for catalytic converters (since 1975) to meet government standards on automobile exhaust gas emissions, 2) compliance with the Environmental Protection Agency's lead phasedown regulations and 3) the increase in downstream capacity (octane-enhancement facilities) due to this compliance.

Consequently, the mix of processing techniques available to the octane-short refiner has undergone transformation. Processing solutions most significantly affected by these changes in gasoline composition include isomerization, reforming, and alkylation.

Among process investments, isomerization has been the preferred route to replace the octane enhancing properties of lead. As the demand for leaded gasoline shrinks, refiners have had to find ways to upgrade their pentane and hexane streams. This need led to a large increase in capacity of pentane/hexane isomerization in 1985. Growth continued in 1986 and was largely accomplished by revamping idle reformers. Isomerization capacity increased by 10 percent during 1986.

Catalytic reforming remains one of the U.S. industry's favored methods for increasing the octane number of gasoline. For refiners introducing a mid-grade 89-octane unleaded gasoline, the number one octane enhancement tool is the reformer. Catalytic reforming increased by 3 percent during 1986.

The near-term future of these processes was forecasted by the National Petroleum Council in its October 1986 study "U.S. Petroleum Refining." During the period from January 1, 1984 through January 1, 1988, isomerization capacity was projected to increase by 139 percent (from 112 thousand to 268 thousand barrels per day), catalytic reforming capacity was projected to decrease by 3 percent (from 3,364 thousand to 3,248 thousand barrels per day).

In general, fluid catalytic cracking is the least expensive way of increasing the octane number of gasoline (known in the industry as making incremental octane number barrels). The cost of an octane number barrel is defined as the cost in cents of increasing the quality of one barrel of finished gasoline by one octane number. When using an already existing FCC unit, there is no need for new capital expenditures; this allows the refinery to produce gasoline at a variable cost of 2 to 3 cents for each incremental octane number barrel under the most

favorable circumstances. This compares with the reformer, the second most economical route, at 3 to 5 cents. Isomerization produces incremental octane number barrels at about the same cost as reforming.

Other Methods to Increase Octane

Gasoline composition has been significantly changed by the use of blendstocks. Some of these blendstocks are added at the refinery, and some are added at the marketing level.

The octane number can be increased (to produce more premium gasoline and other unleaded grades) by adding blendstocks such as methyl tertiary butyl ether (MTBE) and toluene at the refinery, or alcohol (ethanol or methanol) at the marketing level. MTBE will enhance octane by 2.5 octane numbers (used at 11-percent weight concentration), while ethanol (when used at 10-percent concentration) will increase octane by 2.5 to 3.0 numbers.

These blendstocks have another useful property. Most of the wasted energy that escapes from a car's tailpipe is either hydrocarbons (which in combination with other chemicals form ozone when exposed to sunlight) or carbon monoxide. While the stratospheric ozone layer protects human life by filtering out ultraviolet radiation, ground level ozone has been shown to impair lung functioning. Carbon monoxide reduces the capacity of blood to carry oxygen and is particularly hazardous to those with cardio vascular disease.

Regarding tailpipe emissions, the addition to gasoline of methanol, ethanol, or MTBE significantly reduces carbon monoxide emissions and causes a small reduction in unburned hydrocarbons. The oxygen in ethanol, methanol, and MTBE makes gasoline burn more completely and thus emit fewer of these polluting byproducts. Unfortunately, when methanol or ethanol is added to unfinished gasoline, the volatility of the gasoline is increased, resulting in an increase in the emission of unburned hydrocarbons from the fuel tank or carburetor.

MTBE is continuing to gain acceptance as a gasoline additive. Part of its appeal is MTBE's high octane rating, about 109. Tests have shown that MTBE is compatible with automotive fuel systems and marketing fuel-distribution networks. All auto manufacturers approve the use of gasoline with up to 11 percent MTBE. Experts advise that owners of older cars, pre-1980 models, should probably choose MTBE blends. MTBE production in 1986 was about 920 million gallons.

MTBE is produced by a reaction of isobutylene and methanol. Refiners report few problems with MTBE, and they appreciate its relatively low cost, about 45 cents per octane barrel. (MTBE will eventually assume the historical price ratio of extracted toluene to gasoline, which is 1.4 times the spot-

market price of unleaded gasoline). MTBE is the highest octane component produced specifically for use as a gasoline blendstock. MTBE also gets approval from some oil companies as an oxygenating agent, as MTBE has not been blamed for engine problems. MTBE will not usually increase the volatility of the base gasoline. (Volatility is important because when volatility reaches a certain level, the fuel turns from liquid to gas in the fuel system and can cause vapor lock.)

The ethanol industry got its inducement to expand as a result of the 1970's oil shocks. Federal incentives, most of which are still in place, spurred a swift expansion of production from 20 million gallons in 1979 to 759 million gallons in 1986. This 1986 volume represented 0.8 percent of 1986 U.S. gasoline requirements. The data below depict ethanol capacity and production over the period 1983 through 1986 (as found in the various issues of the *Annual Report on the Use of Alcohol in Fuels*, Office of Alcohol Fuels, U.S. Department of Energy).

U.S. Ethanol Plant Capacity and Production

Year	Plant Capacity (million gallons)	Plant Production (million gallons)	Utilization (percent)
1983	500	350	70
1984	625	410	66
1985	772	625	81
1986	958	759	79

Such strong ethanol growth is a function of four primary factors. First, generous tax exemptions exist for ethanol gasoline. The Federal Government exempts gasoline blended with 10 percent ethanol from 6 cents per gallon of the Federal motor fuel tax, and 30 States offer exemptions of from 1 to 16 cents per gallon. Second, barges and pipelines are available for movement of suboctane gasoline. Third, the handling and blending of ethanol has improved as detergents are being added in today's formulations. The fourth factor has been the endorsement of ethanol by various industry segments. General Motors, starting with the 1980 model year, informed new-vehicle buyers that the use of gasoline containing ethanol was acceptable. Strong praises for ethanol came from Texaco (based on fleet usage) and Ashland Oil Company (based on a 2-year study). The American Institute of Chemical Engineers reported that ethanol was very similar in driving characteristics to straight gasoline.

However, problems do exist with ethanol utilization. Automobiles running on ethanol gasoline blends get 15 to 25 percent fewer miles per gallon than those using straight gasoline. About half of the estimated 165 alcohol-fuel plants operating in the early 1980's remain in business today. Ethanol

production capacity presently exists to supply only 10-percent of the total gasoline pool with a 10 percent ethanol blend. Another impediment to gasohol utilization is the damaging effect it has on automobile fuel systems. Correction requires modification of the fuel system and includes replacing some rubber and plastic parts.

There simply is not enough grain to consider using pure ethanol as motor fuel, so advocates of alcohol fuel are turning to methanol, which can be produced from coal, wood, or natural gas. There are 14 methanol plants in the United States with a combined production capacity that is underutilized by about 1 billion gallons per year. An EPA report estimates that there is currently a global surplus of 3 billion gallons of methanol annually, enough to fuel 1.5 million vehicles. Domestic methanol sales over the period 1984 through 1986 (as found in the various issues of the *Annual Report on the Use of Alcohol in Fuels*, Office of Alcohol Fuels, U.S. Department of Energy) are indicated below:

Year	Methanol Sales (million gallons)
1984	210
1985	265
1986	305

Of significance to the methanol industry is the fact that Ford Motor Company is manufacturing flexible fuel vehicles that can run on gasoline-methanol combinations with a single fuel tank. The vehicles have a sensor that determines the percentage of methanol in the fuel and signals an engine control computer that adjusts the fuel injection system and ignition timing to compensate for different blends of methanol and gasoline without driver action.

The State of California is committed to buying 5,000 of these specially built flexible fuel automobiles from Ford. These cars will be capable of burning either gasoline, pure methanol, or a combination. Ford says its cars, if produced in full production, would cost about \$300 more than a comparable gasoline automobile. ARCO, the State's largest marketer, has agreed to sell fuel for them at prices comparable to its super unleaded. The State has recorded some cars traveling more than 100,000 miles on methanol. It is anticipated that methanol will reduce vehicle emissions by as much as 50 percent.

By the end of August 1987, Ford provided 552 alternative fuel cars to California to operate on this gasoline-methanol mix. The cars are served by 45 stations, with another 20 to open next year. In addition, by 1990, the General Services Administration plans to buy at least 5,000 vehicles capable of running

on either gasoline or methanol made from natural gas, coal or wood.

However, as with ethanol, problems do exist with methanol. A fleet of methanol-fueled cars operated by Ford Motor Company gets about 10 miles per gallon, about half the mileage those models get on gasoline. Some engine components must be replaced with components made from substitute materials in order to operate properly with methanol. Also, there must be changes to the ignition and timing controls to maximize efficiency, and a different kind of spark plug is required. In addition, alcohol, particularly methanol, can damage rubber and engine components, leading to engine starting problems as well as leaks and possible fires.

A unique situation concerning blendstocks has developed in Colorado. Colorado is the first State to require motorists in its major cities to use oxygenated gasoline during the winter when pollution is worst. The use of this high oxygen gasoline, made by blending ordinary gasoline with ethanol or the ether compound, MTBE, is expected to reduce carbon monoxide levels in the Denver area by up to 20 percent. The State has ruled that motor vehicles will use fuels containing at least 1.5 percent by weight oxygen content this winter and 2 percent by weight in subsequent winters.

The oxygenated fuels plan will be in effect in Colorado from January 1 to March 1, 1988 and November 1 to March 1 in subsequent years. It is expected to add 3 to 8 cents per gallon to the cost of gasoline, which varies in Colorado from about 93 cents to \$1.15 a gallon for unleaded. MTBE will not be allowed in Colorado in 1989 under EPA rules, for EPA limits MTBE use to less than 2 percent by weight.

Also in Colorado, the Mountain Bell Company announced in August 1987 that it will run its 1,900 vehicle fleet in Colorado on gasoline blended with MTBE. This is the largest private company test in Colorado.

As of early October 1987, the major refining companies virtually locked out ethanol in preference for MTBE in Colorado. However, near the end of the same month, Conoco and Total agreed to supply "low grade fuels" to blend with ethanol in Colorado in addition to MTBE.

The cost and price structure of these three blendstocks presents an interesting comparison. Methanol is the cheapest of the blendstocks at 35.8 cents per octane barrel. After methanol comes MTBE at 45.1 cents, and ethanol at 79.8 cents. Ironically, motorists do pay more for methanol- and MTBE-blended gasoline than for unblended gasoline. Gasohol is usually cheaper because ethanol enjoys Federal and State subsidies that average 8 cents per gallon.

³ Office of Alcohol Fuels, *Annual Report on the Use of Alcohol in Fuels*, April 1987.

Environmental Protection Agency Proposals

The EPA's decision to lower the gasoline lead content has had positive environmental effects. The agency reported that atmospheric lead levels declined 32 percent during 1985; in 1986, emissions of lead declined 59 percent from 1985 levels.

In 1987, the EPA proposed rules aimed at a phased reduction (by stages) of gasoline volatility during summer months by as much as 20 percent. As discussed above, oil refiners therefore began to look for non-lead additives to raise the octane of gasoline. If improperly blended, additives make gasoline more volatile, i.e., make it evaporate more easily. In some cars, that can lead to vapor lock, hesitation, and hard starting in warm weather.

The EPA had three options for alleviating this situation: (1) require manufacturers to build vapor recovery systems into new automobiles, (2) require refiners to reduce gasoline volatility, or (3) require gasoline stations to install vapor recovery systems. EPA has opted for all three, although implementation of regulations for gasoline stations would be left to the discretion of State and local officials. Under the existing EPA proposal of phased reduction of gasoline volatility, average summertime Reid vapor pressure specifications for gasoline produced by Texas Gulf refiners will drop from 10.6 psi to 8.2 psi by 1992. As currently stated, the limitations placed on refiners will require higher throughputs of crude oil to compensate for reduced butane blending while maintaining gasoline octane and volatility levels.

Conclusion

In conclusion, it would appear that blendstocks will continue to face challenges as lead-replacing, octane-enhancing, environmentally sound fuel additives. By the end of 1987, additional new capacity is expected to become available, with the second and possibly the third loan-guarantee plants anticipated to increase ethanol production by up to 60 million gallons per year. Methanol is expected to increase its share of the gasoline fuel market, especially since the EPA in the latter part of 1986 modified its restrictions on evaporative emissions of alcohol-blended fuels.³

The outlook for gasoline may affect the role these blendstocks will take. A 3-percent increase in average gasoline price in

1987 did not reduce gasoline demand below 1986 levels. For 1987, demand was 2 percent higher than in 1986. Vehicle-miles traveled, which increased by almost 5 percent in 1986, rose an estimated 3.7 percent in 1987. It is expected that 1988 will show reasonable growth in vehicle-miles traveled as well. Other factors that may tend to increase gasoline consumption include the downward revision of the Corporate Average Fuel Economy (CAFE) standard from 27.5 to 26.0 miles per gallon. This revision will reduce some of the pressure on car manufacturers to increase new-car efficiency. New Federal legislation allows States to decide whether or not to raise the speed limit to 65 miles per hour on rural interstate highways.

This change will increase gasoline usage, as cars traveling at 65 miles per hour operate less efficiently than those traveling at 55 miles per hour.

The Energy Information Administration's *Annual Energy Outlook* 1986 forecasts a significant long-term rise in world oil price from \$14.57 per barrel (1986 dollars) to \$32.87 per barrel by the year 2000. Although gasoline demand is projected to drop by about 12 percent over the period, the anticipated jump in world oil price of 126 percent could markedly stimulate the introduction of low-cost gasoline alternatives.

Summary Statistics



Table S1. Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Liquids	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	^a 1,074
1975	Average	10,045	8,375	1,633	^b -17	^b -15	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	^a 1,392
1981	Average	10,230	8,572	1,609	^b -290	^b 130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	^a 1,430
1983	Average	10,299	8,688	1,559	^b -214	^b 234	15,231	1,454
1984	Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985	Average	10,636	8,971	1,609	-50	153	15,726	1,519
1986	January	10,911	9,137	1,711	-383	-151	16,088	1,535
	February	10,916	9,173	1,696	-37	804	16,186	1,514
	March	10,664	9,013	1,604	-345	1,160	16,276	1,489
	April	10,435	8,864	1,523	41	262	15,945	1,479
	May	10,440	8,838	1,543	260	-1,109	15,993	1,506
	June	10,187	8,623	1,504	3	-1,238	16,049	1,543
	July	10,225	8,660	1,507	-541	-422	16,307	1,573
	August	9,875	8,374	1,445	242	-551	16,618	1,582
	September	9,852	8,328	1,468	-217	-973	15,909	1,618
	October	9,954	8,419	1,477	-233	476	16,602	1,610
	November	10,061	8,412	1,569	95	-147	16,221	1,612
	December	9,985	8,352	1,571	186	443	17,131	1,593
	Average	10,289	8,680	1,551	-78	-124	16,281	-
1987	January	^E 10,145	^E 8,477	1,592	-189	377	16,382	1,588
	February	^E 10,010	^E 8,318	1,625	(s)	814	16,721	1,565
	March	^E 10,025	^E 8,349	1,607	-151	266	15,965	1,561
	April	^E 10,077	^E 8,426	1,600	11	559	16,501	1,544
	May	^E 9,953	^E 8,305	1,593	82	-122	15,978	1,546
	June	^E 9,902	^E 8,263	1,590	-218	3	16,815	1,552
	July	^E 9,892	^E 8,242	1,588	25	-385	16,996	1,563
	August	^E 9,829	^E 8,190	1,577	-323	-678	16,325	1,594
	September	^E 9,845	^E 8,190	1,587	-209	-276	16,533	1,609
	October	^E 9,972	^E 8,293	1,609	-528	640	16,909	1,605
	November	^E 10,046	^E 8,330	1,641	-418	-651	16,064	1,637
	December	^E 10,034	^E 8,340	1,629	370	580	17,493	1,608
	Average	^E 9,977	^E 8,311	1,603	-129	90	16,556	-
1988	January	^E 9,874	^E 8,245	1,569	56	285	17,224	1,597
	February*	^E 10,016	^{RE} 8,376	^R 1,594	^R -130	^R 895	^R 17,584	^R 1,575
	March**	^E 9,971	^{PE} 8,306	^E 1,602	-145	720	17,149	1,561
	3-Mo. Average	^E 9,952	^{PE} 8,307	^E 1,588	-72	628	17,313	-
1987	3-Mo. Average	^E 10,062	^E 8,384	1,607	-117	475	16,344	-
1986	3-Mo. Average	10,827	9,106	1,670	-262	598	16,183	-

¹ Includes lease condensate.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.

⁵ Includes stocks located in the Strategic Petroleum Reserve.

⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.

⁷ Net Imports equal Imports minus Exports.

⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil¹ and Petroleum Products Overview (Continued)

		Imports			Exports			Net ⁷ Imports
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	Average	5,437	3,426	2,011	722	181	541	4,715
1985	Average	5,067	3,201	1,866	781	204	577	4,286
1986	January	5,573	3,472	2,101	859	159	700	4,714
	February	4,676	2,968	1,709	876	162	715	3,800
	March	4,712	2,988	1,724	732	212	520	3,980
	April	5,439	3,684	1,755	850	94	756	4,589
	May	6,400	4,250	2,150	724	98	625	5,676
	June	6,848	4,635	2,213	642	240	401	6,206
	July	6,942	4,726	2,216	685	65	620	6,256
	August	7,168	4,859	2,309	868	233	635	6,300
	September	7,090	5,031	2,059	714	161	553	6,375
	October	6,427	4,419	2,008	831	151	680	5,597
	November	6,592	4,615	1,977	821	115	706	5,771
	December	6,700	4,412	2,288	820	159	661	5,881
	Average	6,224	4,178	2,045	785	154	631	5,439
1987	January	6,186	4,385	1,801	829	96	732	5,358
	February	5,849	3,896	1,953	991	299	692	4,858
	March	5,618	3,742	1,875	726	165	561	4,892
	April	5,830	4,115	1,715	864	247	617	4,966
	May	5,918	4,243	1,675	659	69	590	5,259
	June	6,688	4,788	1,900	665	116	549	6,023
	July	7,448	5,259	2,189	674	149	525	6,773
	August	7,334	5,470	1,863	662	141	521	6,672
	September	7,051	5,085	1,965	792	116	676	6,258
	October	6,899	5,119	1,780	642	84	558	6,257
	November	6,905	4,939	1,966	737	164	573	6,168
	December	6,705	4,571	2,134	1,057	220	838	5,647
	Average	6,541	4,639	1,901	773	154	619	5,767
1988	January	6,900	4,619	2,281	891	212	679	6,009
	February*	^R 6,995	^R 4,692	^R 2,303	^R 867	^R 149	^R 718	^R 6,128
	March**	<i>6,677</i>	<i>4,847</i>	<i>1,830</i>	^E 983	^E 216	^E 766	^E 5,694
	3-Mo. Average	6,854	4,720	2,134	^E 915	^E 193	^E 721	^E 5,940
1987	3-Mo. Average	5,885	4,011	1,874	844	183	661	5,042
1986	3-Mo. Average	4,997	3,149	1,849	820	178	642	4,177

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate.

* See Explanatory Note 9.1.

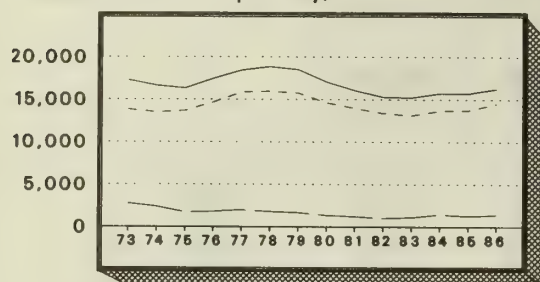
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

(Thousand Barrels per Day)



Annual

Legend
Petroleum Products Supplied
Refinery Production
Net Petroleum Products Imports

20,000

15,000

10,000

5,000

0

F

M

A

M

J

J

A

S

O

N

D

J

F

M

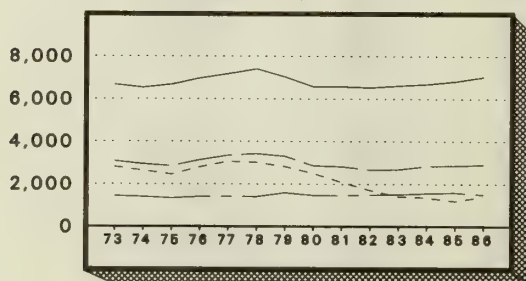
1987

1988

Monthly

Figure S2. Petroleum Products Supplied

(Thousand Barrels per Day)



Annual

Legend
Motor Gasoline
Distillate Fuel Oil
Residual Fuel Oil
Liquefied Petroleum Gases

8,000

6,000

4,000

2,000

0

F

M

A

M

J

J

A

S

O

N

D

J

F

M

1987

1988

Monthly

Figure S3. Crude Oil Supply and Disposition

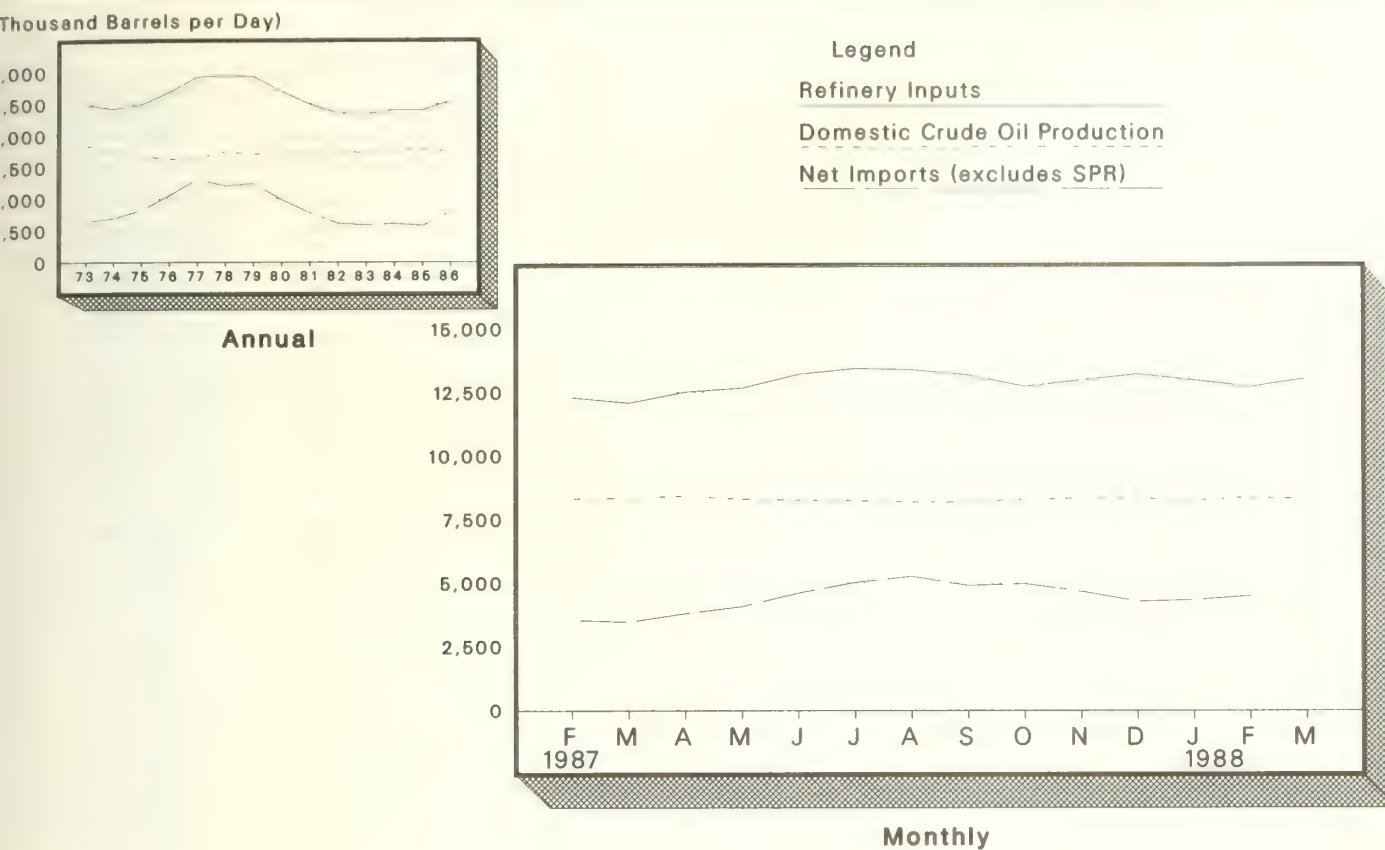


Figure S4. Crude Oil Ending Stocks

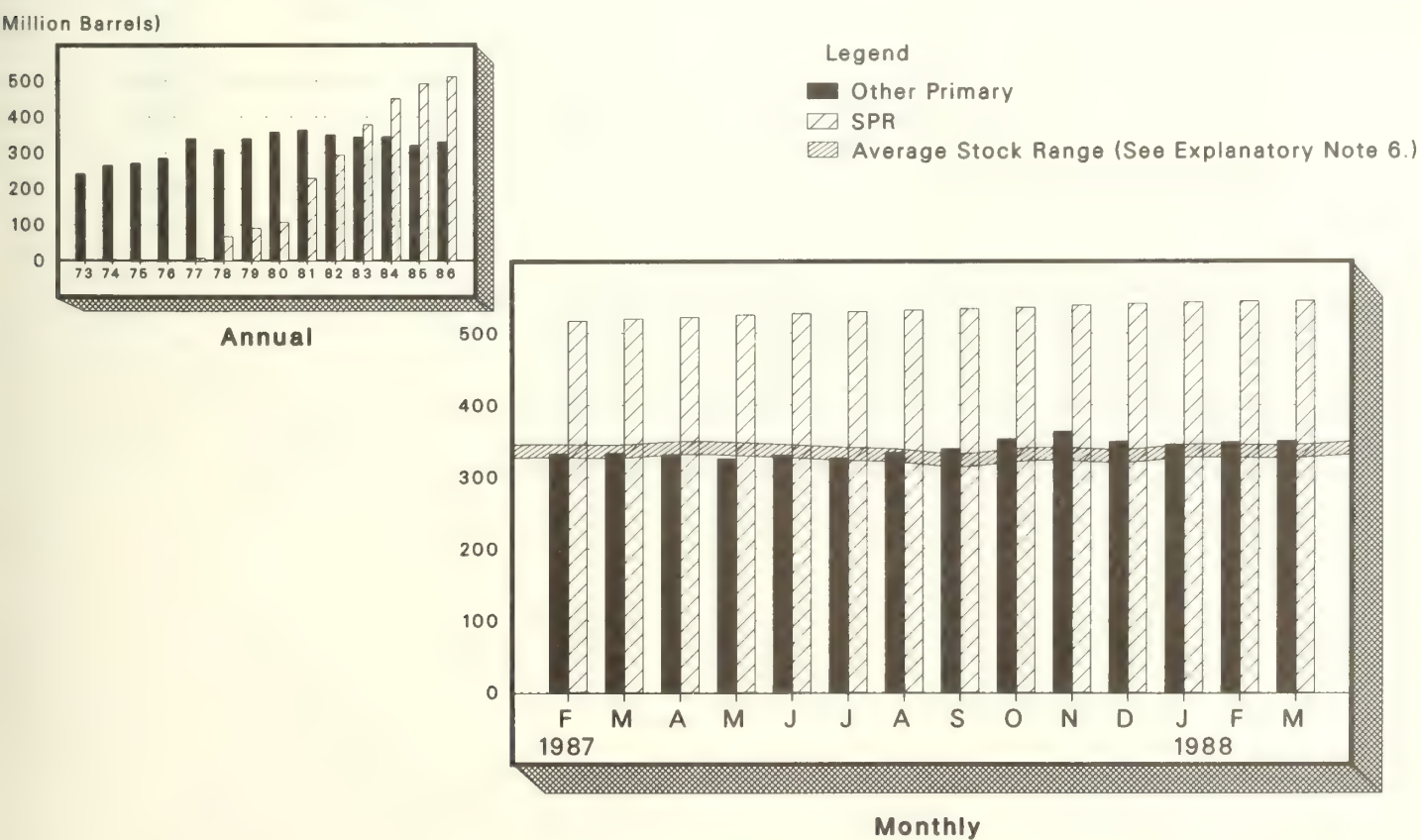


Table S2. Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil ⁵
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
		Thousand Barrels per Day							
1973	Average	9,208	198	3,244	—	3,244	—	11	3
1974	Average	8,774	193	3,477	—	3,477	—	-62	-25
1975	Average	8,375	191	4,105	—	4,105	—	-17	17
1976	Average	8,132	173	5,287	—	5,287	—	-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	746	83
1982	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	Average	8,688	1,714	3,329	234	3,096	-234	720	114
1984	Average	8,879	1,722	3,426	197	3,229	-195	-4	185
1985	Average	8,971	1,825	3,201	118	3,083	-117	67	145
1986	January	9,137	1,870	3,472	51	3,420	-35	-348	364
	February	9,173	1,907	2,968	24	2,944	-35	-2	32
	March	9,013	1,860	2,988	59	2,929	-49	-296	259
	April	8,864	1,836	3,684	63	3,621	-63	104	70
	May	8,838	1,927	4,250	36	4,215	-35	295	79
	June	8,623	1,887	4,635	64	4,571	-64	66	292
	July	8,660	1,903	4,726	52	4,674	-52	-489	189
	August	8,374	1,811	4,859	51	4,809	-51	293	93
	September	8,328	1,782	5,031	47	4,984	-47	-170	161
	October	8,419	1,927	4,419	37	4,382	-36	-197	223
	November	8,412	1,883	4,615	45	4,570	-65	160	-136
	December	8,352	1,807	4,412	48	4,365	-68	254	28
	Average	8,680	1,867	4,178	48	4,130	-50	-28	139
1987	January	E 8,477	E 2,017	4,385	92	4,293	-108	-81	34
	February	E 8,318	E 1,853	3,896	44	3,851	-64	64	422
	March	E 8,349	E 1,968	3,742	95	3,647	-106	-45	349
	April	E 8,426	E 1,990	4,115	57	4,058	-67	78	249
	May	E 8,305	E 1,979	4,243	92	4,151	-101	183	143
	June	E 8,263	E 1,930	4,788	64	4,724	-69	-149	518
	July	E 8,242	E 1,910	5,259	76	5,183	-91	116	87
	August	E 8,190	E 1,908	5,470	63	5,407	-63	-259	215
	September	E 8,190	E 1,874	5,085	64	5,021	-64	-145	251
	October	E 8,293	E 1,986	5,119	57	5,062	-57	-471	-50
	November	E 8,330	E 2,068	4,939	97	4,842	-97	-321	320
	December	E 8,340	E 2,043	4,571	68	4,503	-68	438	180
	Average	E 8,311	E 1,961	4,639	73	4,567	-80	-50	224
1988	January	E 8,245	E 1,999	4,619	67	4,552	-67	123	303
	February ^a	RE 8,376	RE 2,070	4,692	R 49	R 4,643	R -49	R -81	R -21
	March**	PE 8,306	PE 2,087	4,847	32	4,815	-32	-113	E 276
	3-Mo. Average	PE 8,307	PE 2,052	4,720	49	4,671	-49	-23	E 191
1987	3-Mo. Average	E 8,384	E 1,949	4,011	78	3,933	-94	-24	263
1986	3-Mo. Average	9,106	1,878	3,149	46	3,103	-40	-222	225

¹ Includes lease condensate.² Stocks are totals as of end of period.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Strategic Petroleum Reserve.⁵ A balancing item.⁶ Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.⁷ Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels.

See Explanatory Notes 10 and 11.

Footnotes continued on following page.

Table S2. Crude Oil¹ Supply and Disposition (Continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ⁶	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁶	Total	SPR ⁴	Other Primary
		Thousand Barrels per Day				Million Barrels			
1973	Average	-19	13	12,431	2	—	242	—	242
1974	Average	-15	13	12,133	3	—	265	—	265
1975	Average	-17	13	12,442	6	—	271	—	271
1976	Average	-18	15	13,416	8	—	285	—	285
1977	Average	-14	16	14,602	50	—	348	7	340
1978	Average	-14	16	14,739	158	—	376	67	309
1979	Average	-13	16	14,648	235	—	430	91	339
1980	Average	-13	15	13,481	287	—	⁷ 466	108	⁷ 358
1981	Average	-58	5	12,470	228	—	594	230	363
1982	Average	-59	3	11,774	236	—	⁷ 644	294	350
1983	Average	—	2	11,685	164	66	723	379	344
1984	Average	—	2	12,044	181	64	796	451	345
1985	Average	—	1	12,002	204	60	814	493	321
1986	January	—	1	12,374	159	57	826	494	332
	February	—	(s)	11,918	162	56	827	495	332
	March	—	(s)	11,652	212	52	838	497	341
	April	—	(s)	12,512	94	51	837	499	338
	May	—	(s)	13,279	98	49	829	500	329
	June	—	(s)	13,261	240	52	828	502	327
	July	—	(s)	12,917	65	51	845	503	342
	August	—	(s)	13,287	233	48	838	505	333
	September	—	(s)	13,097	161	45	844	506	338
	October	—	(s)	12,636	151	41	851	508	344
	November	—	(s)	12,831	115	41	849	509	339
	December	—	(s)	12,777	159	42	843	512	331
	Average	—	(s)	12,716	154	49	—	—	—
1987	January	—	1	12,570	96	41	849	515	334
	February	—	(s)	12,296	299	41	849	517	332
	March	—	1	12,085	165	39	853	520	333
	April	—	(s)	12,513	247	41	853	522	331
	May	—	(s)	12,662	89	42	850	525	325
	June	—	(s)	13,200	116	36	857	527	330
	July	—	(s)	13,432	149	32	856	530	326
	August	—	(s)	13,381	141	31	866	532	334
	September	—	(s)	13,174	116	28	873	534	339
	October	—	(s)	12,725	84	25	889	536	353
	November	—	(s)	12,982	164	25	901	539	363
	December	—	(s)	13,210	220	31	890	541	349
	Average	—	(s)	12,856	154	34	—	—	—
1988	January	—	(s)	12,975	212	36	888	543	345
	February*	—	(s)	^R 12,715	^R 149	^R 52	^R 892	544	^R 348
	March**	—	^E (s)	13,034	^E 216	^E 33	895	545	350
	3-Mo. Average	—	^E (s)	12,912	^E 193	^E 40	—	—	—
1987	3-Mo. Average	—	(s)	12,318	183	40	—	—	—
1986	3-Mo. Average	—	1	11,983	178	55	—	—	—

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹									
		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ²	Total Arab OPEC ⁴
		Thousand Barrels per Day									
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993
1974	Average	190	4	461	74	300	469	713	979	88	3,280
1975	Average	282	232	715	117	390	280	762	702	122	3,601
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323
1982	Average	170	26	552	92	248	35	514	412	97	2,146
1983	Average	240	0	337	30	338	48	302	422	144	1,862
1984	Average	323	1	325	117	343	10	216	548	166	2,049
1985	Average	187	4	168	45	314	27	293	605	187	1,830
1986	January	215	0	664	11	290	0	278	629	210	2,298
	February	157	0	574	0	290	(s)	204	518	64	1,807
	March	260	0	482	0	161	0	328	797	117	2,145
	April	275	0	698	21	292	0	319	831	139	2,576
	May	193	0	574	40	314	40	398	899	290	2,749
	June	319	0	662	83	353	0	382	772	439	3,010
	July	310	0	738	59	532	66	542	730	330	3,307
	August	363	0	680	37	274	93	606	916	378	3,346
	September	245	0	810	62	341	31	684	856	356	3,383
	October	305	0	697	147	388	0	530	863	346	3,276
	November	311	0	868	34	335	0	483	843	214	3,088
	December	291	0	769	30	251	0	511	841	284	2,976
	Average	271	0	685	44	318	19	440	793	265	2,837
1987	January	158	0	873	15	285	0	313	866	215	2,726
	February	315	0	772	54	420	30	240	764	155	2,749
	March	301	0	427	0	308	73	312	658	135	2,215
	April	302	0	452	62	236	47	529	679	77	2,384
	May	196	0	519	26	289	75	530	854	95	2,584
	June	247	0	780	45	261	155	546	766	268	3,067
	July	326	0	753	42	273	237	787	861	157	3,437
	August	235	0	958	103	312	208	732	780	351	3,679
	September	351	0	902	146	236	193	615	798	287	3,528
	October	267	0	1,042	111	297	86	518	775	401	3,497
	November	378	0	633	97	205	41	607	739	402	3,101
	December	339	0	853	7	216	23	613	672	220	2,941
	Average	284	0	747	59	277	98	530	768	231	2,994
1988	January	312	0	894	61	179	⁵ 1	406	752	^R 495	^R 3,100
	February	358	0	1,307	79	148	0	501	830	171	3,394
	2-Mo. Average	334	0	1,094	69	164	(s)	452	790	339	3,242
1987	2-Mo. Average	233	0	825	33	349	14	279	818	187	2,737
1986	2-Mo. Average	187	0	622	6	290	(s)	243	576	141	2,065

¹ Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

² "Other OPEC" consists of Ecuador, Gabon, Iraq, Kuwait, and Qatar.

³ "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members.

⁴ The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources ⁶										Total Imports
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	January	62	823	681	58	108	333	21	326	862	3,275	5,573
	February	33	690	557	11	85	218	18	309	949	2,870	4,676
	March	18	750	616	27	79	178	25	186	688	2,567	4,712
	April	34	798	694	13	111	188	23	209	793	2,863	5,439
	May	32	881	743	37	130	365	27	237	1,199	3,651	6,400
	June	29	753	884	17	167	569	30	233	1,157	3,838	6,848
	July	44	763	850	25	131	353	29	237	1,202	3,634	6,942
	August	39	801	738	12	133	584	7	214	1,294	3,822	7,168
	September	15	801	615	17	162	437	23	291	1,345	3,706	7,090
	October	38	842	680	26	112	173	21	215	1,043	3,151	6,427
	November	39	960	565	53	129	448	21	179	1,111	3,504	6,592
	December	57	809	746	7	148	351	12	291	1,304	3,724	6,700
	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	54	777	669	29	99	419	33	327	1,053	3,461	6,186
	February	54	762	689	30	111	235	24	296	900	3,100	5,849
	March	33	720	699	11	124	311	17	247	1,240	3,402	5,618
	April	43	808	667	12	113	485	24	259	1,034	3,446	5,830
	May	31	865	569	26	117	408	21	214	1,082	3,334	5,918
	June	22	898	654	13	114	377	21	281	1,240	3,621	6,688
	July	46	890	664	58	96	334	17	288	1,618	4,011	7,448
	August	26	837	564	51	98	289	20	274	1,496	3,655	7,334
	September	36	835	699	42	105	254	25	271	1,256	3,523	7,051
	October	17	932	658	16	88	320	17	250	1,104	3,402	6,899
	November	20	818	627	14	111	425	15	235	1,540	3,804	6,905
	December	7	896	588	24	67	324	23	327	1,508	3,764	6,705
	Average	32	837	645	27	103	349	21	272	1,259	3,547	6,541
1988	January	49	953	767	40	104	^R 312	29	341	1,205	^R 3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	2-Mo. Average	54	973	734	31	99	313	23	273	1,205	3,704	6,946
1987	2-Mo. Average	54	770	678	30	105	332	28	312	980	3,289	6,026
1986	2-Mo. Average	48	760	622	36	97	279	20	318	903	3,083	5,147

Footnotes continued.

⁶ Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

R = Revised data. (s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)

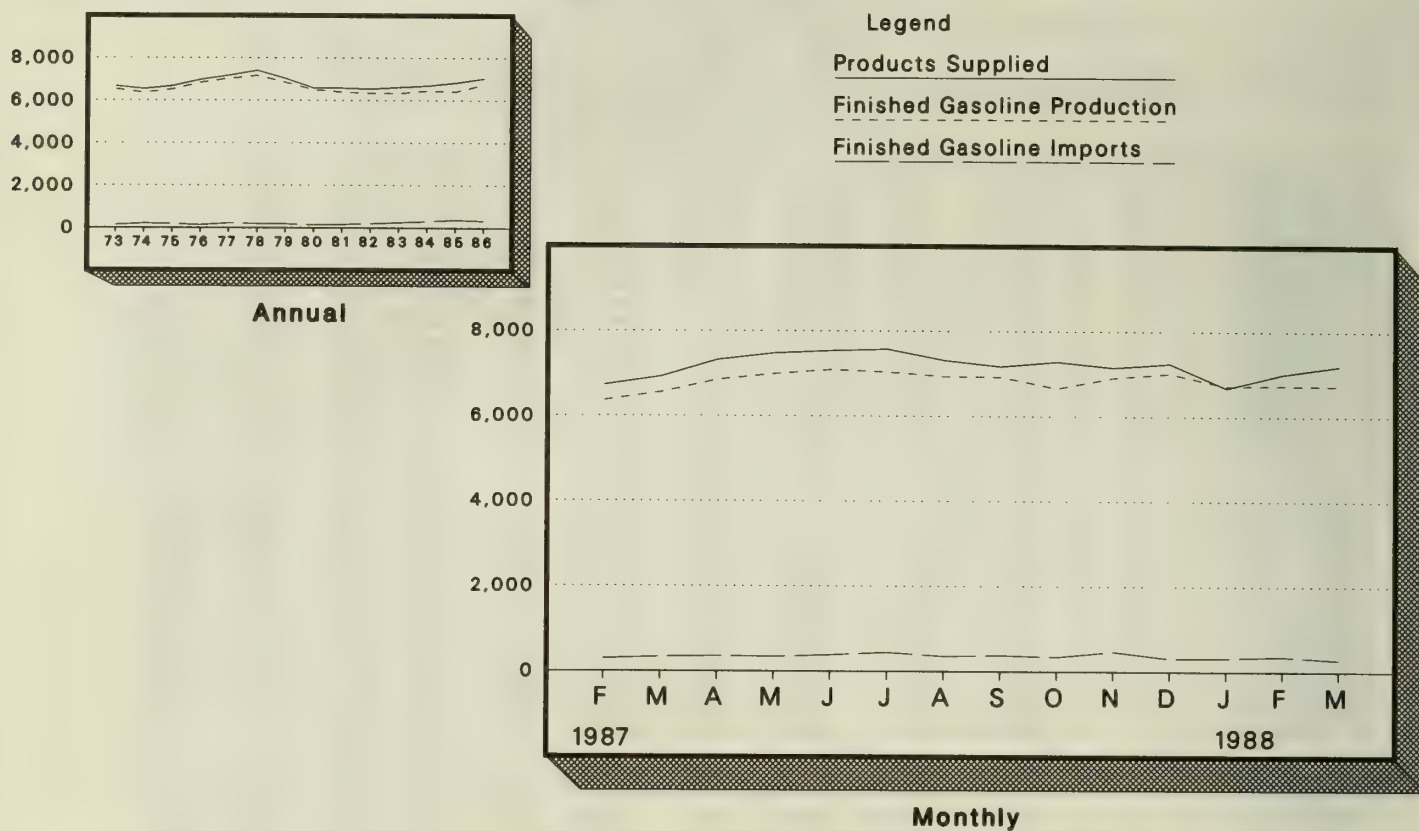
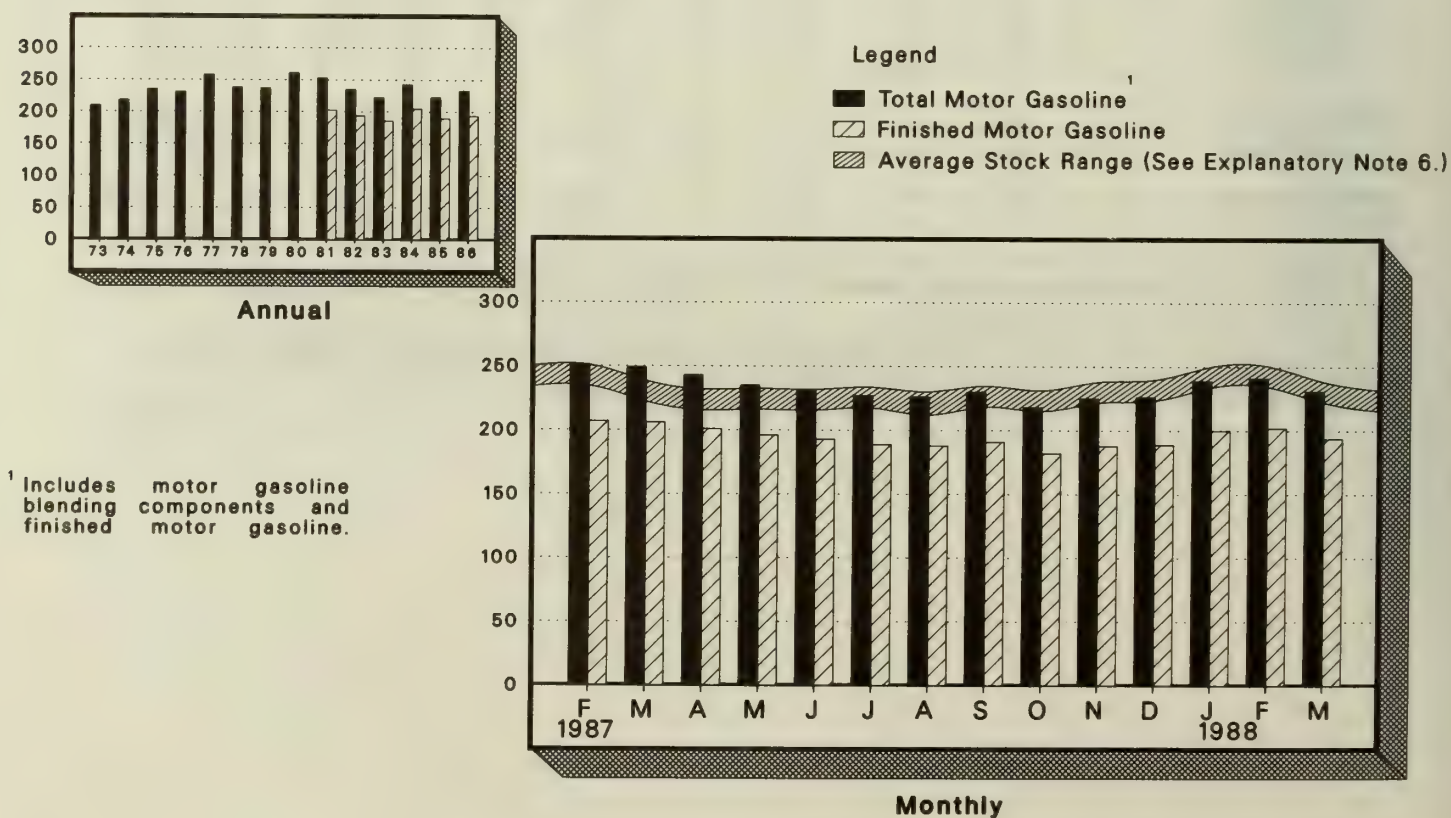


Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)



¹ Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawal ^{2 3}	Exports	Product Supplied		Total Motor Gasoline ⁵	Finished Motor Gasoline	
						Total ⁴	Unleaded			Unleaded
								Thousand Barrels per Day		
1973	Average	6,535	134	9	4	6,674	--	--	209	--
1974	Average	6,360	204	-24	2	6,537	--	--	⁶ 218	--
1975	Average	6,520	184	⁶ -28	2	6,675	--	--	235	--
1976	Average	6,841	131	10	3	6,978	--	--	231	--
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	--
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	--
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	25	20	6,539	3,409	52.1	⁶ 235	--
1983	Average	6,340	247	⁶ 45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	-54	5	6,693	3,987	59.6	243	205
1985	Average	6,419	381	41	10	6,831	4,406	64.5	223	190
1986	January	6,522	332	-347	5	6,502	4,404	67.7	238	201
	February	6,302	334	-156	11	6,469	4,365	67.5	244	205
	March	6,061	224	691	21	6,955	4,678	67.3	219	184
	April	6,498	291	338	23	7,105	4,783	67.3	207	174
	May	7,095	471	-450	9	7,106	4,729	66.5	221	188
	June	7,101	392	-265	18	7,209	4,914	68.2	230	196
	July	6,956	337	189	47	7,436	5,182	69.7	224	190
	August	7,092	303	83	43	7,435	5,138	69.1	222	187
	September	6,891	303	-289	40	6,864	4,813	70.1	234	196
	October	6,616	322	372	61	7,250	5,086	70.1	222	184
	November	6,895	280	-200	96	6,879	4,918	71.5	229	190
	December	6,970	320	-122	24	7,143	5,193	72.7	233	194
	Average	6,752	326	-11	33	7,034	4,854	69.0	--	--
1987	January	6,688	320	-484	55	6,469	4,775	73.8	250	209
	February	6,367	303	78	22	6,726	4,991	74.2	251	207
	March	6,555	342	43	20	6,921	5,150	74.4	249	206
	April	6,851	362	145	42	7,317	5,401	73.8	243	201
	May	6,991	348	181	48	7,472	5,577	74.6	235	196
	June	7,089	385	103	46	7,531	5,657	75.1	231	193
	July	7,041	448	119	33	7,575	5,734	75.7	227	189
	August	6,933	361	38	19	7,313	5,628	77.0	226	188
	September	6,925	383	-109	30	7,170	5,500	76.7	230	191
	October	6,662	348	300	21	7,289	5,616	77.1	218	182
	November	6,914	474	-205	32	7,151	5,587	78.1	225	188
	December	7,017	318	-29	59	7,247	5,711	78.8	226	189
	Average	6,839	366	15	35	7,184	5,447	75.8	--	--
1988	January	6,723	324	-361	8	6,679	5,392	80.7	239	200
	February*	^R 6,736	^R 365	^R -78	^R 18	^R 7,004	^R 5,571	^R 79.5	^R 241	^R 202
	March**	6,729	284	220	^E 36	7,196	5,747	79.9	231	194
	3-Mo. Average	6,729	323	-73	^E 21	6,959	5,570	80.0	--	--
1987	3-Mo. Average	6,542	322	-128	33	6,705	4,971	74.1	--	--
1986	3-Mo. Average	6,295	296	70	13	6,648	4,486	67.5	--	--

¹ Stocks are totals as of end of period.² Beginning in 1981, excludes blending components.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Includes gasoline.⁵ Includes motor gasoline blending components.⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

^{*} See Explanatory Note 9.3.^{**} Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

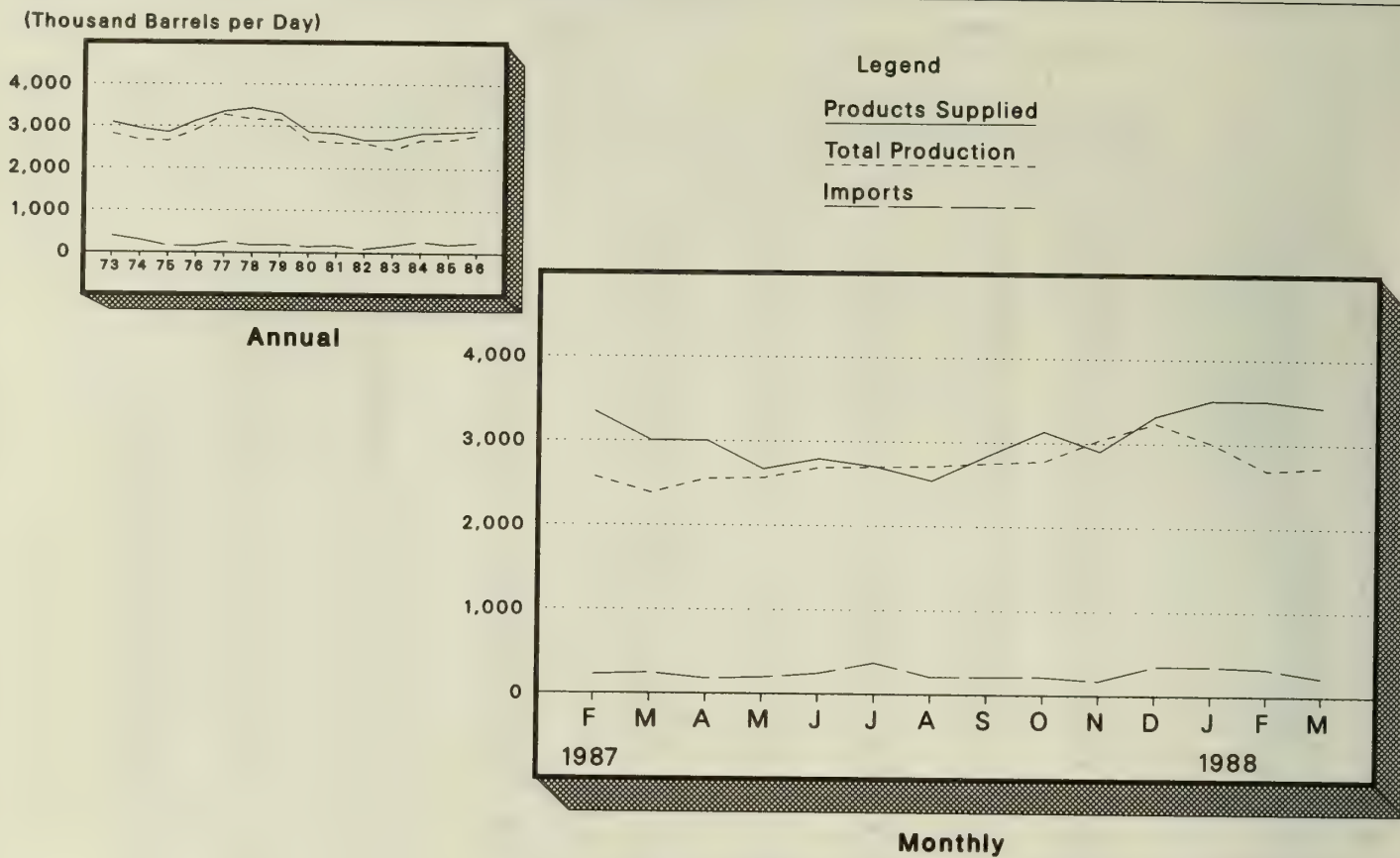


Figure S8. Distillate Fuel Oil Ending Stocks

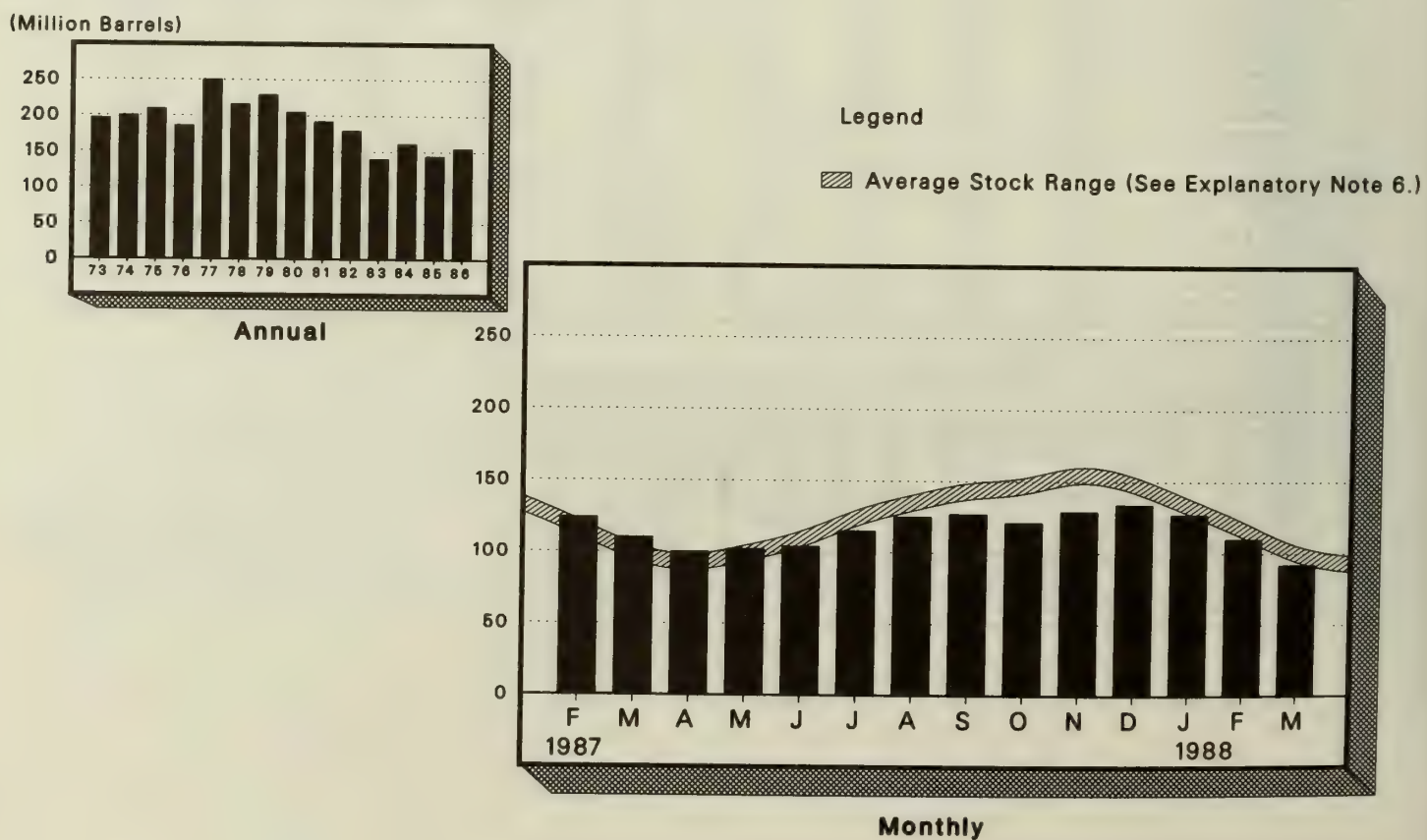


Table S5. Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
								Million Barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	⁴ 179
1983	Average	2,456	174	⁴ 124	--	64	2,690	140
1984	Average	2,681	272	-57	--	51	2,845	161
1985	Average	2,687	200	48	--	67	2,868	144
1986	January	2,899	325	232	--	126	3,330	136
	February	2,563	169	860	--	176	3,416	112
	March	2,643	217	438	--	131	3,168	99
	April	2,788	147	97	--	128	2,904	96
	May	2,858	149	-95	--	149	2,762	99
	June	2,729	169	-301	--	53	2,544	108
	July	2,710	313	-355	--	75	2,592	119
	August	2,922	370	-607	--	64	2,621	138
	September	2,865	262	-489	--	98	2,540	152
	October	2,717	243	25	--	74	2,912	152
	November	2,917	254	-222	--	72	2,877	158
	December	2,943	339	102	--	55	3,329	155
	Average	2,798	247	-31	--	100	2,914	--
1987	January	2,774	197	440	--	152	3,259	141
	February	2,574	229	637	--	93	3,347	124
	March	2,384	251	437	--	67	3,005	110
	April	2,553	185	319	--	53	3,004	100
	May	2,565	201	-45	--	51	2,670	102
	June	2,689	248	-82	--	61	2,793	104
	July	2,700	378	-336	--	38	2,704	115
	August	2,711	215	-338	--	47	2,540	125
	September	2,750	217	-59	--	64	2,844	127
	October	2,778	222	187	--	53	3,134	121
	November	3,043	180	-263	--	56	2,904	129
	December	3,241	354	-176	--	92	3,327	134
	Average	2,731	240	56	--	69	2,959	--
1988	January	3,008	355	236	--	82	3,517	127
	February [*]	^R 2,683	^R 330	^R 604	--	^R 107	^R 3,511	110
	March ^{**}	2,727	228	572	--	^E 87	3,439	92
	3-Mo. Average	2,809	304	468	--	^E 92	3,489	--
1987	3-Mo. Average	2,577	225	500	--	104	3,199	--
1986	3-Mo. Average	2,706	239	498	--	143	3,301	--

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

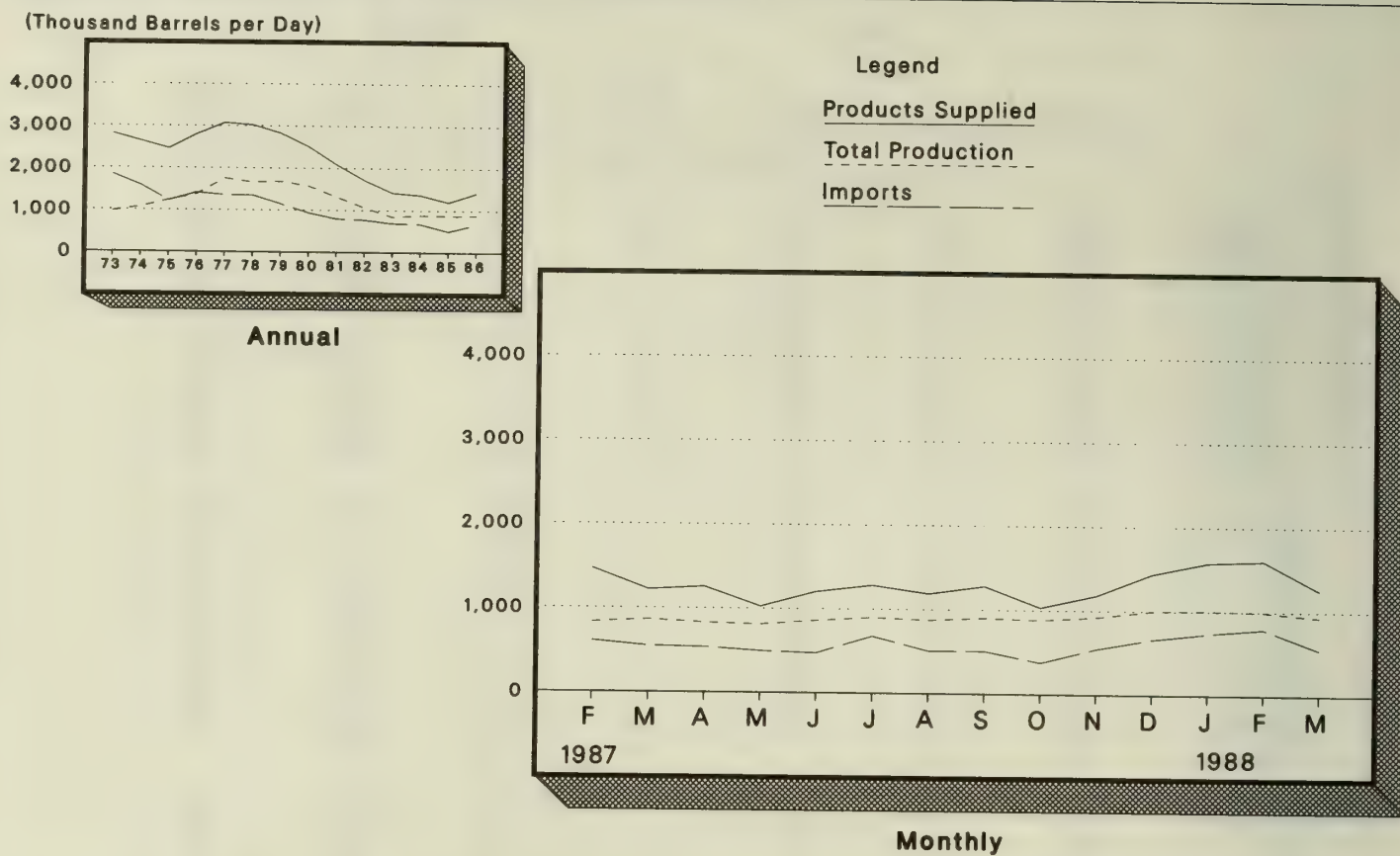


Figure S10. Residual Fuel Oil Ending Stocks

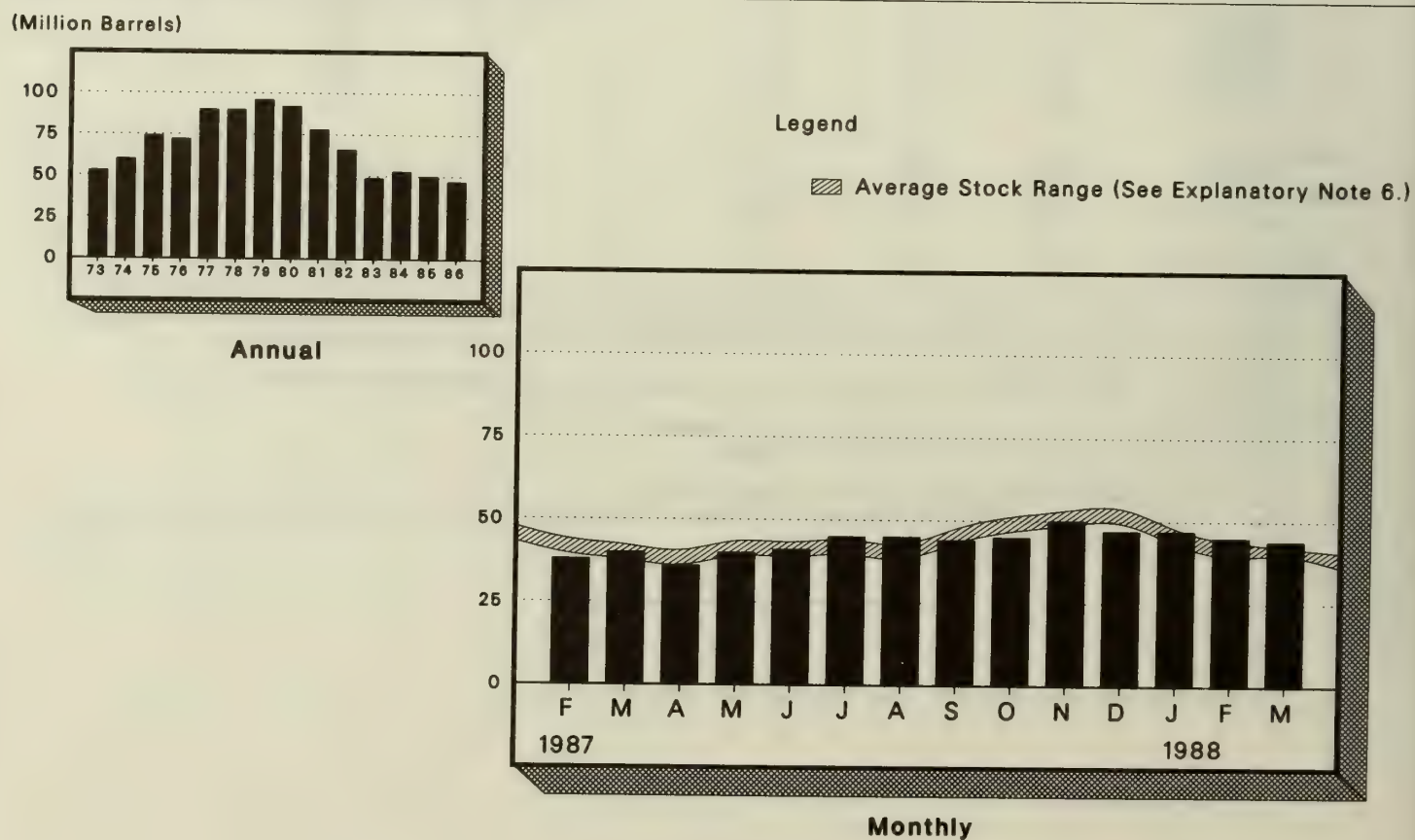


Table S6. Residual Fuel Oil Supply and Disposition

						Disposition		Ending Stocks ³
		Total Production	Imports		Crude Used Directly ²	Exports	Product Supplied ²	
		Million Barrels						
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	⁴ 92
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	⁴ 66
1983	Average	852	699	⁴ 55	—	185	1,421	49
1984	Average	891	681	-12	—	190	1,369	53
1985	Average	882	510	7	—	197	1,202	50
1986	January	940	622	56	--	211	1,407	49
	February	856	604	200	--	183	1,478	43
	March	813	626	108	--	113	1,435	40
	April	933	545	127	--	202	1,402	36
	May	913	675	-114	--	129	1,345	39
	June	818	712	-111	--	43	1,377	43
	July	850	673	75	--	90	1,508	40
	August	896	793	-29	--	174	1,485	41
	September	854	641	-89	--	110	1,296	44
	October	827	635	-59	--	144	1,259	46
	November	975	574	-15	--	143	1,391	46
	December	987	913	-37	--	224	1,638	47
	Average	889	669	8	--	147	1,418	--
1987	January	919	667	80	--	204	1,462	45
	February	833	612	246	--	221	1,470	38
	March	867	552	-48	--	150	1,220	40
	April	831	541	123	--	239	1,257	36
	May	814	498	-142	--	144	1,026	40
	June	863	477	-33	--	101	1,206	41
	July	902	680	-122	--	175	1,285	45
	August	877	511	-12	--	185	1,190	45
	September	905	513	42	--	177	1,283	44
	October	885	380	-36	--	194	1,035	45
	November	925	546	-145	--	146	1,181	50
	December	1,001	664	76	--	300	1,441	47
	Average	885	553	(s)	--	186	1,253	--
1988	January	1,009	737	23	--	190	1,578	47
	February [*]	^R 997	^R 792	^R 40	--	^R 229	^R 1,601	^R 45
	March ^{**}	934	548	21	--	^E 250	1,253	44
	3-Mo. Average	980	690	28	--	^E 223	1,475	--
1987	3-Mo. Average	874	610	88	--	191	1,381	--
1986	3-Mo. Average	870	618	119	--	168	1,438	--

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

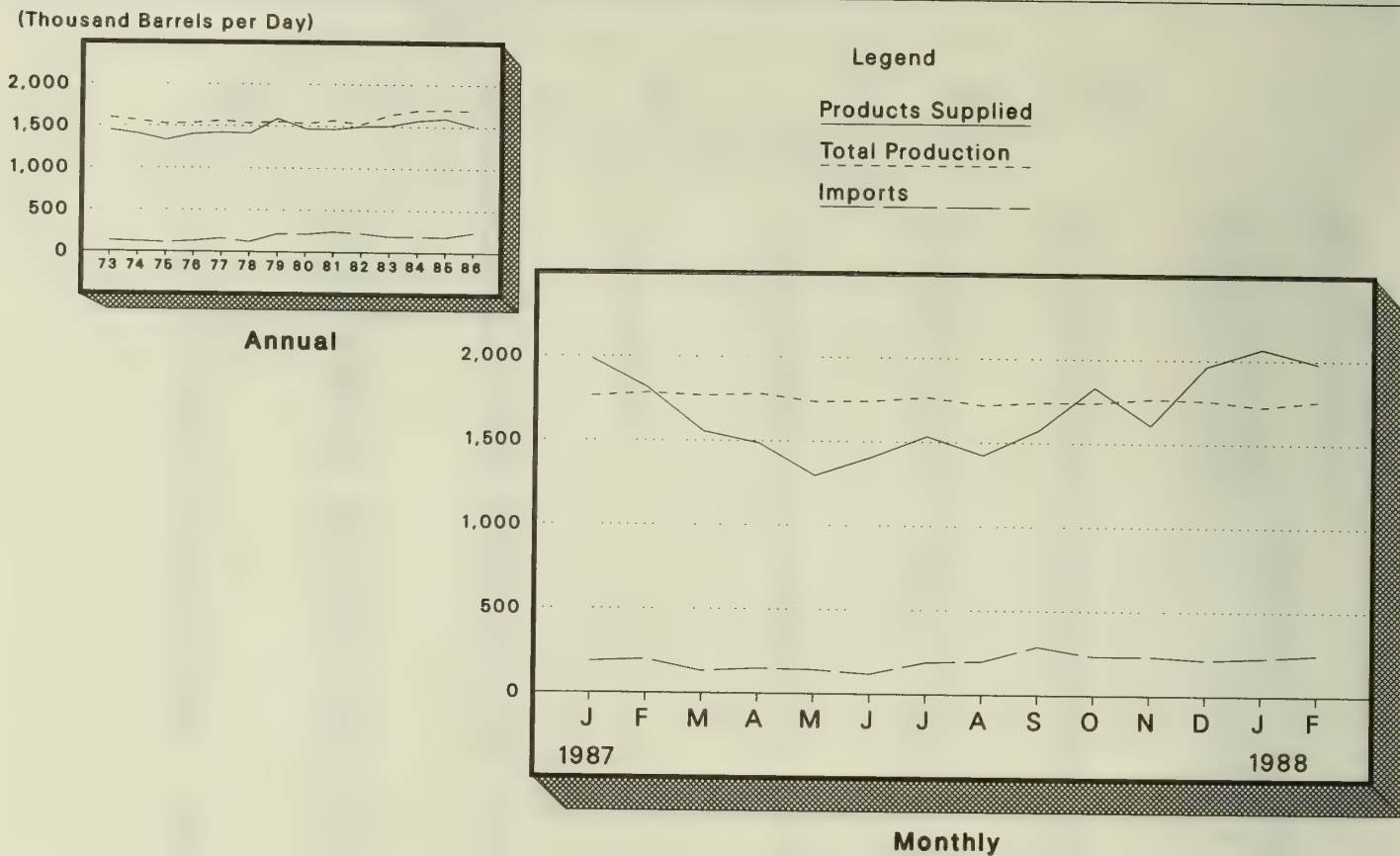


Figure S12. Liquefied Petroleum Gases Ending Stocks

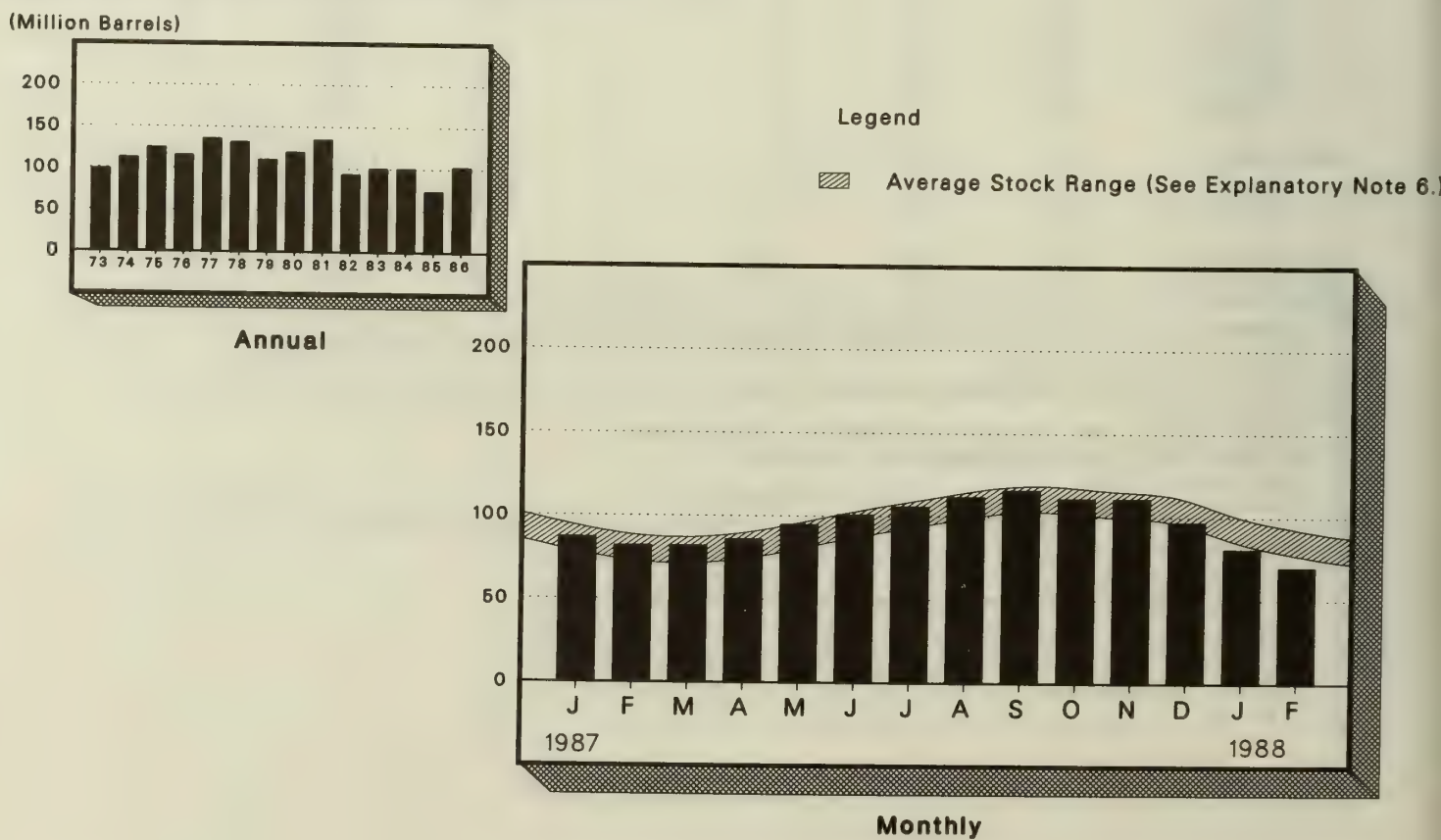


Table S7. Liquefied Petroleum Gases¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
								Million Barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	⁴ 113
1975	Average	1,527	112	⁴ -35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	⁴ 120
1981	Average	1,571	244	⁴ -18	289	42	1,466	135
1982	Average	1,528	226	111	300	55	1,499	⁴ 94
1983	Average	1,642	190	⁴ 4	253	73	1,509	⁴ 101
1984	Average	1,697	195	⁴ 19	291	48	1,572	101
1985	Average	1,704	187	75	304	62	1,599	74
1986	January	1,850	280	80	364	47	1,800	71
	February	1,815	208	108	325	74	1,733	68
	March	1,693	202	-98	250	47	1,500	71
	April	1,642	134	-200	256	33	1,286	77
	May	1,685	196	-336	267	40	1,238	87
	June	1,649	253	-490	228	25	1,158	102
	July	1,684	303	-450	199	50	1,287	116
	August	1,619	271	-332	243	53	1,262	126
	September	1,631	282	-142	288	27	1,456	131
	October	1,625	234	249	332	26	1,750	123
	November	1,724	310	254	417	53	1,817	115
	December	1,725	227	411	456	33	1,875	103
	Average	1,695	242	-80	302	42	1,512	-
1987	January	1,764	188	493	419	38	1,988	87
	February	1,784	201	206	341	36	1,815	82
	March	1,768	132	-19	282	42	1,556	82
	April	1,781	149	-139	276	30	1,486	86
	May	1,736	142	-286	270	27	1,296	95
	June	1,741	119	-182	255	17	1,407	101
	July	1,767	190	-155	244	24	1,534	106
	August	1,722	198	-214	251	31	1,424	112
	September	1,741	288	-134	266	52	1,576	116
	October	1,741	233	171	294	19	1,832	111
	November	1,766	233	1	357	35	1,609	111
	December	1,759	214	442	395	56	1,963	97
	Average	1,756	190	15	304	34	1,623	-
1988	January	1,723	226	529	366	44	2,069	81
	February*	1,757	245	364	336	47	1,982	70
	2-Mo. Average	1,740	235	449	352	45	2,027	-
1987	2-Mo. Average	1,773	195	357	382	37	1,906	-
1986	2-Mo. Average	1,833	246	94	345	60	1,768	-

¹ Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

* See Explanatory Note 9.5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,418	277	⁴ 4	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	⁴ 253
1983	Average	3,460	411	⁴ 6	712	242	2,923	⁴ 256
1984	Average	3,632	565	⁴ 23	791	245	3,183	240
1985	Average	3,721	588	-17	886	240	3,166	246
1986	January	3,902	541	⁵ -172	967	311	2,993	252
	February	3,868	393	-209	747	270	3,035	⁵ 258
	March	3,754	454	⁵ 21	854	208	3,167	257
	April	3,788	638	-100	760	369	3,196	260
	May	4,055	659	-114	810	298	3,492	⁵ 264
	June	4,209	687	⁵ -70	853	263	3,710	266
	July	4,145	589	⁵ 119	1,064	357	3,432	262
	August	4,223	572	335	1,061	301	3,768	⁵ 252
	September	4,225	571	⁵ 35	846	278	3,708	⁵ 251
	October	3,969	575	⁵ -112	666	375	3,391	254
	November	3,904	559	⁵ 36	940	342	3,217	253
	December	3,920	490	⁵ 90	1,069	325	3,105	250
	Average	3,997	561	-10	888	308	3,353	--
1987	January	3,835	428	-152	665	283	3,164	256
	February	3,773	608	-354	385	320	3,322	266
	March	3,772	599	-146	717	281	3,225	270
	April	3,948	478	110	885	254	3,397	267
	May	4,054	486	171	918	320	3,473	262
	June	4,195	671	197	898	323	3,842	256
	July	4,354	493	110	835	256	3,866	253
	August	4,336	580	-152	697	238	3,828	257
	September	4,346	565	-16	909	353	3,632	258
	October	4,219	597	19	969	272	3,594	257
	November	3,999	533	-40	993	305	3,195	258
	December	4,053	584	266	1,090	330	3,484	250
	Average	4,076	551	3	833	294	3,503	--
1988	January	3,988	639	-143	785	354	3,345	254
	February*	3,941	570	-35	726	318	3,433	255
	2-Mo. Average	3,965	606	-91	756	336	3,388	--
1987	2-Mo. Average	3,806	514	-248	532	301	3,239	--
1986	2-Mo. Average	3,886	471	-189	863	292	3,013	--

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁵ Ending stocks and stock withdrawal for 1986 are slightly different from those published in the 1986 *Petroleum Supply Annual* (PSA)—Volume 1. PSA statistics inadvertently omitted stocks of other hydrocarbons and alcohol.

* See Explanatory Note 9.6.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1986: EIA, *Petroleum Supply Annual*.
4. January 1987 through February 1988: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6.)
5. March 1988: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 1.1.)
6. January 1987 through March 1988: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey. (See Explanatory Note 3.)



Detailed Statistics

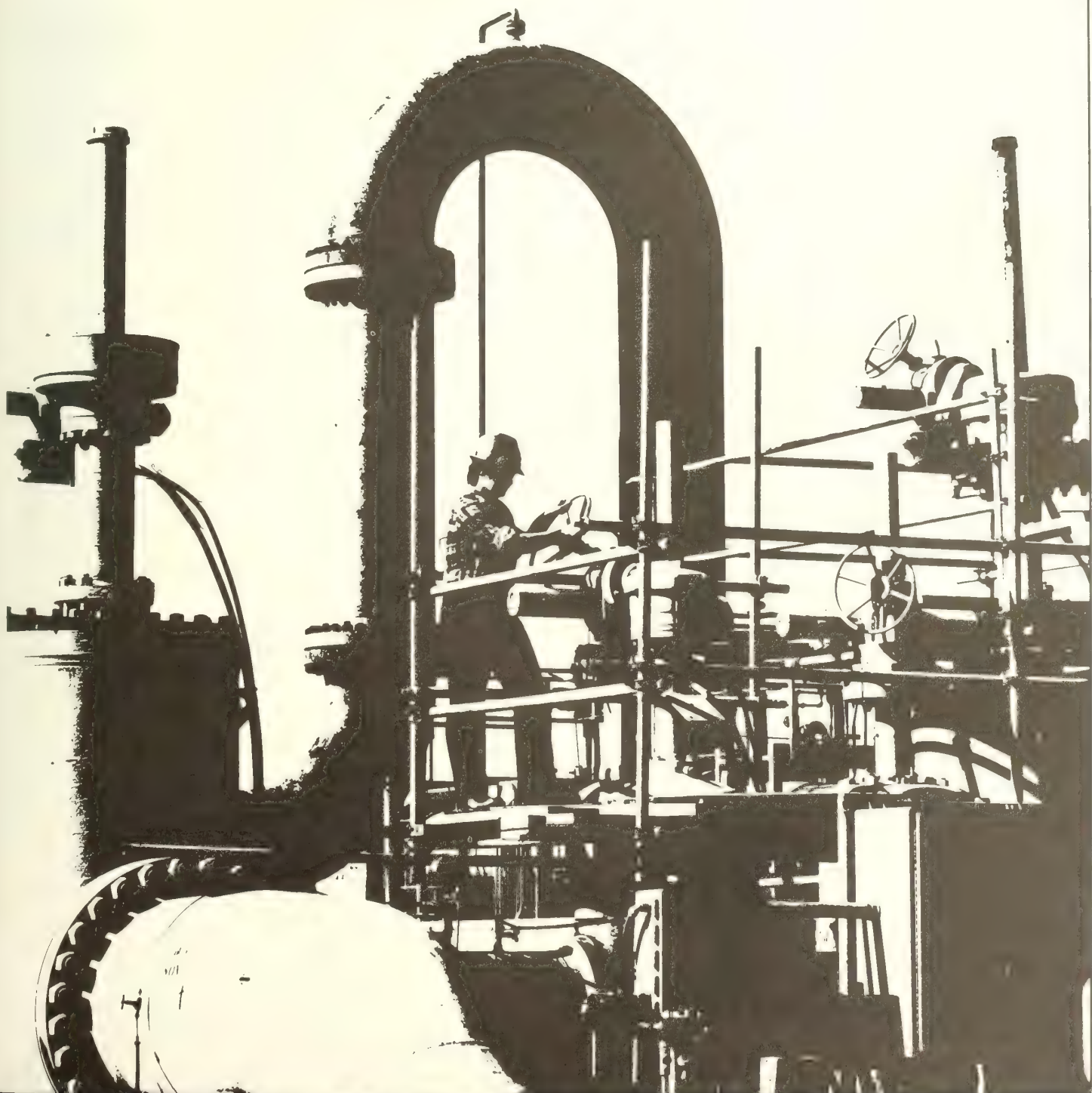




Table 1. U.S. Petroleum Balance, February 1988

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 60,021	E 2,070	E 121,990	E 2,033
(2) Lower 48 States	E 182,871	E 6,306	E 376,484	E 6,275
(3) Total U.S.	E 242,892	E 8,376	E 498,474	E 8,308
Net Imports				
(4) Imports (Gross Excluding SPR)	134,650	4,643	275,769	4,596
(5) SPR Imports	1,430	49	3,501	58
(6) Exports	4,318	149	10,896	182
(7) Imports (Net Including SPR)	131,762	4,544	268,374	4,473
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-1,426	-49	-3,498	-58
(9) Other Stock Withdrawal (+) or Addition (-)	-2,356	-81	1,454	24
(10) Product Supplied and Losses	-1,506	-52	-2,625	-44
(11) Unaccounted for ¹	-622	-21	8,776	146
(12) Total Other Sources	-5,910	-204	4,107	68
(13) Crude Input to Refineries	368,744	12,715	770,955	12,849
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	46,219	1,594	94,867	1,581
(15) Net Imports ²	490	17	757	13
(16) Stock Withdrawal (+) or Addition (-) ²	278	10	178	3
(17) Total NGPL Supply	46,987	1,620	95,802	1,597
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	-1,254	-43	-5,590	-93
(19) Imports	9,976	344	22,754	379
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,342	46	3,195	53
(21) Refinery Processing Gain ¹	20,220	697	41,832	697
(22) Crude Oil Product Supplied	1,504	52	2,621	44
(23) Total Other Liquids	31,788	1,096	64,812	1,080
(23) = (18) through (22)				
(24) Total Production of Products ³	447,519	15,432	931,569	15,526
(24) = (13) + (17) + (23)				
Net Imports of Refined Products ³				
(25) Imports (Gross)	56,252	1,940	113,849	1,897
(26) Exports	20,771	716	41,745	696
(27) Imports (Net)	35,481	1,223	72,104	1,202
(28) Total New Supply of Products	482,999	16,655	1,003,673	16,728
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) ³	26,926	928	40,204	670
(30) Total Petroleum Products Supplied for Domestic Use	509,925	17,584	1,043,877	17,398
(30) = (28) + (29)				
(31) Finished Motor Gasoline	203,123	7,004	410,161	6,836
(32) Distillate Fuel Oil	101,817	3,511	210,842	3,514
(33) Residual Fuel Oil	46,435	1,601	95,369	1,589
(34) Liquefied Petroleum Gases	57,491	1,982	121,623	2,027
(35) Other ⁴	99,554	3,433	203,261	3,388
(36) Crude Oil	1,504	52	2,621	44
(37) Total Product Supplied	509,925	17,584	1,043,877	17,398
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	347,835	--	347,835	--
(39) Strategic Petroleum Reserve (SPR)	544,146	--	544,146	--
(40) Unfinished Oils	97,786	--	97,786	--
(41) Gasoline Blending Components ⁵	39,073	--	39,073	--
(42) Pentanes Plus	6,853	--	6,853	--
(43) Finished Refined Products ³	539,410	--	539,410	--
(44) Total Stocks	1,575,103	--	1,575,103	--

¹ A balancing item.² Includes products in the pentanes plus category only.³ For products included see Explanatory Note 9.7.⁴ Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.⁵ Includes other hydrocarbons and alcohol.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 242,892	0	136,080	-3,782	-622	2	368,744	4,318	891,981
Natural Gas Liquids and LRGs	46,100	13,410	7,639	10,828	0	0	14,466	1,407	62,104
Pentanes Plus	8,556	0	546	278	0	0	4,711	56	6,853
Liquefied Petroleum Gases	37,544	13,410	7,093	10,550	0	0	9,755	1,350	57,491
Ethane	13,301	253	9	1,357	0	0	49	114	14,758
Propane	14,982	9,827	3,998	6,246	0	0	232	884	33,937
Normal Butane	5,161	3,127	1,851	1,905	0	0	5,705	296	30,171
Isobutane	4,100	203	1,234	1,042	0	0	3,769	56	12,157
Other Liquids	1,342	0	9,976	-1,254	0	0	16,336	0	136,859
Other Hydrocarbons and Alcohol	1,342	0	0	130	0	0	1,472	0	496
Unfinished Oils	0	0	8,408	-2,448	0	0	10,842	0	97,786
Motor Gasoline Blending Components	0	0	1,568	1,064	0	0	4,022	0	38,322
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	255
Finished Petroleum Products	119	406,356	49,159	16,376	0	0	0	19,421	469,219
Finished Motor Gasoline	9	195,335	10,576	-2,261	0	0	0	536	202,339
Finished Leaded Motor Gasoline	8	38,742	397	2,595	0	0	0	180	51,655
Finished Unleaded Motor Gasoline	1	156,593	10,179	-4,856	0	0	0	356	161,561
Finished Aviation Gasoline	0	478	0	172	0	0	0	0	2,080
Naphtha-Type Jet Fuel	0	5,160	80	1,635	0	0	0	2	6,731
Kerosene-Type Jet Fuel	0	34,937	1,849	1,023	0	0	0	974	36,889
Kerosene	0	3,420	568	251	0	0	0	126	6,931
Distillate Fuel Oil	41	77,776	9,580	17,515	0	0	0	3,095	109,640
Residual Fuel Oil	0	28,925	22,982	1,163	0	0	0	6,635	46,435
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,538	2,584	-77	0	0	0	119	5,926
Other Oils > 400 Deg. for Petro. Feed. Use	0	5,435	0	-463	0	0	0	143	4,829
Special Naphthas	0	1,550	41	177	0	0	0	107	1,661
Lubricants	0	5,052	360	194	0	0	0	594	5,012
Waxes	0	509	50	-29	0	0	0	31	850
Petroleum Coke	0	15,818	23	131	0	0	0	6,989	7,185
Asphalt and Road Oil	0	7,913	440	-2,929	0	0	0	4	25,655
Still Gas	0	18,627	0	0	0	0	0	0	0
Miscellaneous Products	69	1,883	26	-126	0	0	0	67	3,788
Total	290,453	419,766	202,854	22,168	-622	2	399,546	25,145	1,575,103

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - February 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 498,474	0	279,270	-2,044	8,776	4	770,955	10,896	2,621	891,981
Natural Gas Liquids and LRGs	94,618	27,453	14,978	27,139	0	0	30,443	2,849	130,896	77,044
Pentanes Plus	17,691	0	876	178	0	0	9,353	119	9,273	6,853
Liquefied Petroleum Gases	76,927	27,453	14,102	26,961	0	0	21,090	2,730	121,623	70,191
Ethane	26,833	416	19	3,692	0	0	89	239	30,632	18,567
Propane	30,934	20,458	7,901	17,678	0	0	474	1,777	74,721	30,171
Normal Butane	10,510	6,150	3,716	4,391	0	0	12,733	595	11,439	12,157
Isobutane	8,650	429	2,466	1,200	0	0	7,794	119	4,831	9,296
Other Liquids	3,195	0	22,754	-5,590	0	0	36,031	0	-15,672	136,859
Other Hydrocarbons and Alcohol	3,195	0	0	-64	0	0	3,131	0	0	496
Unfinished Oils	0	0	20,162	-4,601	0	0	26,307	0	-10,746	97,786
Motor Gasoline Blending Components	0	0	2,592	-926	0	0	6,592	0	-4,926	38,322
Aviation Gasoline Blending Components	0	0	0	1	0	0	1	0	0	255
Finished Petroleum Products	249	851,808	99,747	13,243	0	0	0	39,015	926,031	469,219
Finished Motor Gasoline	19	403,741	20,629	-13,445	0	0	0	783	410,161	202,339
Finished Leaded Motor Gasoline	17	79,564	624	1,540	0	0	0	310	81,435	51,655
Finished Unleaded Motor Gasoline	2	324,177	20,005	-14,985	0	0	0	473	328,726	150,684
Finished Aviation Gasoline	0	1,117	2	251	0	0	0	0	1,370	2,080
Naphtha-Type Jet Fuel	0	10,878	159	1,225	0	0	0	13	12,249	6,731
Kerosene-Type Jet Fuel	0	73,090	4,318	5,082	0	0	0	3,499	78,991	36,889
Kerosene	0	6,631	1,558	1,516	0	0	0	136	9,569	6,931
Distillate Fuel Oil	85	170,969	20,582	24,842	0	0	0	5,636	210,842	109,640
Residual Fuel Oil	0	60,210	45,820	1,872	0	0	0	12,533	95,369	45,465
Naphtha < 400 Deg. for Petro. Feed. Use	0	7,166	4,191	-201	0	0	0	216	10,940	2,537
Other Oils > 400 Deg. for Petro. Feed. Use	0	12,598	0	-131	0	0	0	1,038	11,429	1,732
Special Naphthas	0	3,193	476	138	0	0	0	171	3,636	3,515
Lubricants	0	10,241	706	-565	0	0	0	1,154	9,228	13,882
Waxes	0	997	95	-67	0	0	0	66	959	850
Petroleum Coke	0	33,139	86	-425	0	0	0	13,646	19,154	7,185
Asphalt and Road Oil	0	15,064	1,040	-6,856	0	0	0	7	9,241	25,655
Still Gas	0	38,837	0	0	0	0	0	0	38,837	0
Miscellaneous Products	145	3,937	85	7	0	0	0	117	4,057	3,788
Total	596,536	879,261	416,749	32,748	8,776	4	837,429	52,760	1,043,877	1,575,103

¹ Unaccounted for crude oil is a balancing item.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,376	0	4,692	-130	-21	(s)	12,715	149	52
Natural Gas Liquids and LRGs	1,590	462	263	373	0	0	499	49	2,142
Pentanes Plus	295	0	19	10	0	0	162	2	159
Liquefied Petroleum Gases	1,295	462	245	364	0	0	336	47	1,982
Ethane	459	9	(s)	47	0	0	2	4	509
Propane	517	339	138	215	0	0	8	30	1,170
Normal Butane	178	108	64	66	0	0	197	10	208
Isobutane	141	7	43	36	0	0	130	2	95
Other Liquids	46	0	344	-43	0	0	563	0	-216
Other Hydrocarbons and Alcohol	46	0	0	4	0	0	51	0	0
Unfinished Oils	0	0	290	-84	0	0	374	0	-168
Motor Gasoline Blending Components	0	0	54	37	0	0	139	0	-48
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	4	14,012	1,695	565	0	0	0	670	15,607
Finished Motor Gasoline	(s)	6,736	365	-78	0	0	0	18	7,004
Finished Leaded Motor Gasoline	(s)	1,336	14	89	0	0	0	6	1,433
Finished Unleaded Motor Gasoline	(s)	5,400	351	-167	0	0	0	12	5,571
Finished Aviation Gasoline	0	16	0	6	0	0	0	0	22
Naphtha-Type Jet Fuel	0	178	3	56	0	0	0	(s)	237
Kerosene-Type Jet Fuel	0	1,205	64	35	0	0	0	34	1,270
Kerosene	0	118	20	9	0	0	0	4	142
Distillate Fuel Oil	1	2,682	330	604	0	0	0	107	3,511
Residual Fuel Oil	0	997	792	40	0	0	0	229	1,601
Naphtha < 400 Deg. for Petro. Feed. Use	0	122	89	-3	0	0	0	4	204
Other Oils > 400 Deg. for Petro. Feed. Use	0	187	0	-16	0	0	0	5	167
Special Naphthas	0	53	1	6	0	0	0	4	57
Lubricants	0	174	12	7	0	0	0	20	173
Waxes	0	18	2	-1	0	0	0	1	17
Petroleum Coke	0	545	1	5	0	0	0	241	310
Asphalt and Road Oil	0	273	15	-101	0	0	0	(s)	187
Still Gas	0	642	0	0	0	0	0	0	642
Miscellaneous Products	2	65	1	-4	0	0	0	2	62
Total	10,016	14,475	6,995	764	-21	(s)	13,777	867	17,584

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - February 1988
(Thousand Barrels per Day)

(Thousand Barrels per Day)		Supply				Disposition			
Commodity	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,308	0	4,655	-34	146	(s)	12,849	182	44
Natural Gas Liquids and LRGs	1,577	458	250	452	0	0	507	47	2,182
Pentanes Plus	295	0	15	3	0	0	156	2	155
Liquefied Petroleum Gases	1,282	458	235	449	0	0	352	45	2,027
Ethane	447	7	(s)	62	0	0	1	4	511
Propane	516	341	132	295	0	0	8	30	1,245
Normal Butane	175	103	62	73	0	0	212	10	191
Isobutane	144	7	41	20	0	0	130	2	81
Other Liquids	53	0	379	-93	0	0	601	0	-261
Other Hydrocarbons and Alcohol	53	0	0	-1	0	0	52	0	0
Unfinished Oils	0	0	336	-77	0	0	438	0	-179
Motor Gasoline Blending Components	0	0	43	-15	0	0	110	0	-82
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	(s)	0	0
Finished Petroleum Products	4	14,197	1,662	221	0	0	0	650	15,434
Finished Motor Gasoline	(s)	6,729	344	-224	0	0	0	13	6,836
Finished Leaded Motor Gasoline	(s)	1,326	10	26	0	0	0	5	1,357
Finished Unleaded Motor Gasoline	(s)	5,403	333	-250	0	0	0	8	5,479
Finished Aviation Gasoline	0	19	(s)	4	0	0	0	0	23
Naphtha-Type Jet Fuel	0	181	3	20	0	0	0	(s)	204
Kerosene-Type Jet Fuel	0	1,218	72	85	0	0	0	58	1,317
Kerosene	0	111	26	25	0	0	0	2	159
Distillate Fuel Oil	1	2,849	343	414	0	0	0	94	3,514
Residual Fuel Oil	0	1,004	764	31	0	0	0	209	1,589
Naphtha < 400 Deg. for Petro. Feed Use	0	119	70	-3	0	0	0	4	182
Other Oils > 400 Deg. for Petro. Feed Use	0	210	0	-2	0	0	0	17	190
Special Naphthas	0	53	8	2	0	0	0	3	61
Lubricants	0	171	12	-9	0	0	0	19	154
Waxes	0	17	2	-1	0	0	0	1	16
Petroleum Coke	0	552	1	-7	0	0	0	227	319
Asphalt and Road Oil	0	251	17	-114	0	0	0	(s)	154
Still Gas	0	647	0	0	0	0	0	0	647
Miscellaneous Products	2	66	1	(s)	0	0	0	2	68
Total	9,942	14,654	6,946	546	146	(s)	13,957	879	17,398

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels)

Commodity	Supply					Disposition				Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 1,186	0	35,514	670	-1,397	1,890	0	37,863	0	0
Natural Gas Liquids and LRGs	796	1,524	2,082	77	0	4,102	0	113	39	8,429
Liquefied Petroleum Gases	689	1,524	1,865	80	0	4,102	0	98	39	8,123
Pentanes Plus	107	0	217	-3	0	0	0	15	0	306
Other Liquids	12	0	4,223	592	0	336	0	6,123	0	-960
Other Hydrocarbons and Alcohol	12	0	0	18	0	0	0	30	0	0
Unfinished Oils	0	0	2,962	457	0	195	0	4,917	0	0
Motor Gasoline Blending Components	0	0	1,261	117	0	141	0	1,176	0	-1,303
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	343
Finished Petroleum Products	0	44,525	44,015	301	0	81,104	0	0	423	169,521
Finished Motor Gasoline	0	21,057	9,982	-3,097	0	40,540	0	0	21	68,461
Finished Leaded Motor Gasoline	0	2,061	347	507	0	5,733	0	0	2	8,646
Finished Unleaded Motor Gasoline	0	18,996	9,635	-3,604	0	34,807	0	0	19	59,815
Finished Aviation Gasoline	0	10	0	81	0	67	0	0	0	158
Naphtha-Type Jet Fuel	0	546	0	213	0	328	0	0	(s)	1,087
Kerosene-Type Jet Fuel	0	2,309	1,290	73	0	10,739	0	0	35	14,376
Kerosene	0	310	340	50	0	1,200	0	0	10	8,901
Distillate Fuel Oil	0	9,573	9,313	3,462	0	25,799	0	0	12	1,890
Residual Fuel Oil	0	5,103	22,289	78	0	840	0	0	2	48,135
Naphtha and Other Oils for Petro. Feed. Use	0	214	14	-67	0	26	0	0	45	28,308
Special Naphthas	0	21	9	106	0	274	0	0	13	142
Lubricants	0	699	300	29	0	961	0	0	125	1,152
Waxes	0	82	33	4	0	9	0	0	5	3,325
Petroleum Coke	0	1,267	0	72	0	0	0	0	127	123
Asphalt and Road Oil	0	1,126	423	-532	0	237	0	0	1	1,212
Still Gas	0	1,845	0	0	0	0	0	0	0	1,253
Miscellaneous Products	0	363	22	-171	0	84	0	0	0	1,845
Total	1,994	46,049	85,833	1,640	-1,397	87,432	0	44,099	462	176,990
							0			189,313

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 25,120	0	15,094	-327	-133	41,717	0	80,814	657	0	70,902
Natural Gas Liquids and LRGs	8,322	2,345	3,463	6,034	0	1,294	0	4,285	452	16,722	22,154
Liquefied Petroleum Gases	6,987	2,345	3,423	5,320	0	824	0	3,284	395	15,220	19,623
Pentanes Plus	1,335	0	40	714	0	470	0	1,001	56	1,502	2,531
Other Liquids	185	0	0	-72	0	-94	0	1,976	0	-1,957	22,396
Other Hydrocarbons and Alcohol	185	0	0	52	0	0	0	237	0	0	122
Unfinished Oils	0	0	0	-146	0	0	0	354	0	-500	14,524
Motor Gasoline Blending Components	0	0	0	27	0	-94	0	1,390	0	-1,457	7,592
Aviation Gasoline Blending Components	0	0	0	-5	0	0	0	-5	0	0	158
Finished Petroleum Products	10	88,758	719	1,912	0	17,697	0	0	243	108,852	118,135
Finished Motor Gasoline	0	48,954	77	-2,978	0	13,022	0	0	26	59,049	58,607
Finished Leaded Motor Gasoline	0	8,923	0	384	0	3,272	0	0	6	12,573	16,839
Finished Unleaded Motor Gasoline	0	40,031	77	-3,362	0	9,750	0	0	19	46,477	41,768
Finished Aviation Gasoline	0	38	0	52	0	86	0	0	0	176	548
Naphtha-Type Jet Fuel	0	504	77	847	0	21	0	0	0	1,449	1,026
Kerosene-Type Jet Fuel	0	4,949	269	756	0	1,869	0	0	2	7,841	7,465
Kerosene	0	966	0	161	0	-57	0	0	116	954	1,851
Distillate Fuel Oil	0	18,119	150	4,527	0	2,729	0	0	3	25,522	29,789
Residual Fuel Oil	0	2,221	78	100	0	-270	0	0	0	2,129	3,069
Naphtha and Other Oils for Petro. Feed. Use	0	1,489	17	-56	0	-25	0	0	20	1,405	510
Special Naphthas	0	367	26	37	0	158	0	0	5	583	632
Lubricants	0	852	11	-26	0	182	0	0	37	982	2,319
Waxes	0	40	10	4	0	0	0	0	2	52	99
Petroleum Coke	0	3,308	0	-179	0	0	0	0	31	3,098	1,501
Asphalt and Road Oil	0	2,793	0	-1,397	0	0	0	0	1	1,395	10,373
Still Gas	0	3,867	0	0	0	0	0	0	0	3,867	0
Miscellaneous Products	10	291	4	64	0	-18	0	0	2	349	346
Total	33,637	91,103	19,276	7,547	-133	60,614	0	87,075	1,352	123,617	233,587

¹ Unaccounted for crude oil is a balancing item.

(\$) — Less than 500 barrels.

E — Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels)

Commodity	Supply					Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 108,245	0	79,881	-6,823	-313	-14,397	2	166,591	0	0	711,377
Natural Gas Liquids and LRGs	30,830	7,567	1,175	4,568	0	-3,716	0	8,536	707	31,181	49,129
Liquefied Petroleum Gases	25,794	7,567	961	4,987	0	-3,484	0	5,108	707	30,010	45,073
Pentanes Plus	5,036	0	214	-419	0	-232	0	3,428	0	1,171	4,056
Other Liquids	776	0	5,446	-1,896	0	-242	0	7,481	0	-3,397	61,202
Other Hydrocarbons and Alcohol	776	0	0	-8	0	0	0	768	0	0	282
Unfinished Oils	0	0	5,446	-3,677	0	-195	0	4,886	0	-3,312	46,453
Motor Gasoline Blending Components	0	0	0	1,789	0	-47	0	1,827	0	-85	14,417
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	50
Finished Petroleum Products	107	184,928	3,039	11,451	0	-101,831	0	0	8,303	89,391	127,783
Finished Motor Gasoline	9	86,915	39	2,244	0	-55,221	0	0	243	33,743	50,145
Finished Leaded Motor Gasoline	8	17,310	39	842	0	-9,430	0	0	143	8,626	12,447
Finished Unleaded Motor Gasoline	1	69,605	0	1,402	0	-45,791	0	0	101	25,116	37,698
Finished Aviation Gasoline	0	309	0	33	0	-162	0	0	0	180	602
Naphtha-Type Jet Fuel	0	2,427	0	506	0	-502	0	0	1	2,430	2,368
Kerosene-Type Jet Fuel	0	17,825	0	304	0	-13,341	0	0	688	4,100	13,274
Kerosene	0	1,933	228	111	0	-1,143	0	0	0	1,129	2,022
Distillate Fuel Oil	41	35,708	0	8,442	0	-28,888	0	0	1,312	13,991	23,110
Residual Fuel Oil	0	9,531	227	209	0	-570	0	0	1,414	7,983	14,635
Naphtha and Other Oils for Petro. Feed. Use	0	6,833	2,516	-357	0	-1	0	0	41	8,950	2,959
Special Naphthas	0	1,077	0	21	0	-432	0	0	87	579	1,573
Lubricants	0	2,800	21	325	0	-1,259	0	0	316	1,571	6,498
Waxes	0	262	2	-6	0	-9	0	0	15	234	469
Petroleum Coke	0	7,301	0	214	0	0	0	0	4,153	3,362	3,443
Asphalt and Road Oil	0	2,319	6	-610	0	-237	0	0	(s)	1,478	4,836
Still Gas	0	8,646	0	0	0	0	0	0	0	8,646	0
Miscellaneous Products	57	1,042	0	15	0	-66	0	0	32	1,016	1,849
Total	139,958	192,495	89,541	7,300	-313	-120,186	2	182,608	9,010	117,176	949,491

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock With- drawal (+) or Addi- tion (-)	Unac- counted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 16,556	0	1,687	-323	1,636	-7,228	0	12,328	0	0	13,337
Natural Gas Liquids and LRGs	3,540	229	579	-41	0	-1,680	0	632	51	1,945	1,111
Liquefied Petroleum Gases	2,768	229	504	-37	0	-1,442	0	538	51	1,434	951
Pentanes Plus	772	0	75	-4	0	-238	0	94	0	511	160
Other Liquids	26	0	0	-484	0	0	0	-605	0	147	4,833
Other Hydrocarbons and Alcohol	26	0	0	2	0	0	0	28	0	0	7
Unfinished Oils	0	0	0	-86	0	0	0	-362	0	276	2,385
Motor Gasoline Blending Components	0	0	0	-400	0	0	0	-271	0	-129	2,441
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	2	12,495	98	-529	0	-514	0	0	5	11,547	13,193
Finished Motor Gasoline	0	6,442	39	-104	0	-423	0	0	0	5,954	5,441
Finished Leaded Motor Gasoline	0	2,224	0	39	0	-262	0	0	0	2,001	2,352
Finished Unleaded Motor Gasoline	0	4,218	39	-143	0	-161	0	0	0	3,953	3,089
Finished Aviation Gasoline	0	27	0	-10	0	9	0	0	0	26	69
Naphtha-Type Jet Fuel	0	333	0	13	0	-145	0	0	(s)	201	400
Kerosene-Type Jet Fuel	0	786	0	3	0	484	0	0	0	1,273	853
Kerosene	0	16	0	3	0	0	0	0	0	19	105
Distillate Fuel Oil	0	2,990	57	102	0	-439	0	0	0	2,710	3,172
Residual Fuel Oil	0	364	0	-29	0	0	0	0	0	335	362
Naphtha and Other Oils for Petro. Feed. Use	0	-6	0	6	0	0	0	0	(s)	(s)	24
Special Naphthas	0	-1	0	1	0	0	0	0	0	0	8
Lubricants	0	26	0	11	0	0	0	0	4	33	96
Waxes	0	49	2	-18	0	0	0	0	0	33	91
Petroleum Coke	0	299	0	19	0	0	0	0	0	318	31
Asphalt and Road Oil	0	608	0	-523	0	0	0	0	1	84	2,514
Still Gas	0	518	0	0	0	0	0	0	0	518	0
Miscellaneous Products	2	44	0	-3	0	0	0	0	(s)	43	27
Total	20,124	12,724	2,364	-1,377	1,636	-9,422	0	12,355	56	13,639	32,474

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, February 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks		
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 91,785	0	3,904	3,021	-415	-21,982	0	71,148	3,661	1,504	82,429
Natural Gas Liquids and LRGs	2,612	1,745	339	190	0	0	0	900	158	3,827	1,210
Liquefied Petroleum Gases	1,306	1,745	339	200	0	0	0	727	158	2,704	1,151
Pentanes Plus	1,306	0	0	-10	0	0	0	173	0	1,123	59
Other Liquids	343	0	307	606	0	0	0	1,361	0	-105	31,332
Other Hydrocarbons and Alcohol	343	0	0	66	0	0	0	409	0	0	51
Unfinished Oils	0	0	0	1,004	0	0	0	1,047	0	-43	22,611
Motor Gasoline Blending Components	0	0	307	-469	0	0	0	-100	0	-62	8,623
Aviation Gasoline Blending Components	0	0	0	5	0	0	0	5	0	0	47
Finished Petroleum Products	0	75,650	1,289	3,241	0	3,544	0	0	10,446	73,277	55,267
Finished Motor Gasoline	0	31,967	439	1,674	0	2,082	0	0	246	35,916	22,774
Finished Leaded Motor Gasoline	0	8,224	11	823	0	687	0	0	29	9,716	7,348
Finished Unleaded Motor Gasoline	0	23,743	428	851	0	1,395	0	0	217	26,200	15,426
Finished Aviation Gasoline	0	94	0	16	0	0	0	0	0	110	463
Naphtha-Type Jet Fuel	0	1,350	3	56	0	298	0	0	0	1,707	1,586
Kerosene-Type Jet Fuel	0	9,068	291	-113	0	249	0	0	250	9,245	6,396
Kerosene	0	195	0	-74	0	0	0	0	0	121	362
Distillate Fuel Oil	0	11,386	60	982	0	799	0	0	0	1,768	9,438
Residual Fuel Oil	0	11,706	388	805	0	0	0	0	0	5,218	7,839
Naphtha and Other Oils for Petro. Feed. Use	0	443	37	-66	0	0	0	0	0	156	288
Special Naphthas	0	86	6	12	0	0	0	0	2	102	150
Lubricants	0	675	28	-145	0	116	0	0	0	562	1,644
Waxes	0	76	3	-13	0	0	0	0	0	10	116
Petroleum Coke	0	3,643	23	5	0	0	0	0	0	56	1,666
Asphalt and Road Oil	0	1,067	11	133	0	0	0	0	0	993	1,666
Still Gas	0	3,751	0	0	0	0	0	0	0	1,210	2,138
Miscellaneous Products	0	143	0	-31	0	0	0	0	0	3,751	0
Total	94,740	77,395	5,839	7,058	-415	-18,438	0	73,409	14,266	78,504	170,238

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State
(Thousand Barrels)

PAD District and State	December 1987		Year-to-Date	
	Total	Daily Average	Total	Daily Average
PAD District I, Total	E 1,293	E 42	E 15,478	E 42
Florida	720	23	8,366	23
New York	E 57	E 2	E 713	E 2
Pennsylvania	E 285	E 9	E 3,313	E 9
Virginia	3	(s)	E 18	E 0
West Virginia	236	8	2,835	8
Adjustment 1	-8	(s)	233	1
PAD District II, Total	E 26,214	E 846	E 315,065	E 863
Illinois	2,100	68	23,768	65
Indiana	342	11	3,905	11
Kansas	5,022	162	E 59,120	E 162
Kentucky	512	17	5,743	16
Michigan	E 2,127	E 69	E 23,988	E 66
Missouri	11	(s)	E 84	E 0
Nebraska	504	16	6,077	17
North Dakota	3,424	110	41,351	113
Ohio	E 1,009	E 33	E 12,373	E 34
Oklahoma	10,793	348	132,970	364
South Dakota	143	5	1,639	4
Tennessee	53	2	577	2
Adjustment 1	174	6	3,470	10
PAD District III, Total	116,365	3,754	E 1,387,669	E 3,802
Alabama	1,759	57	20,620	56
Arkansas	1,189	38	E 13,875	E 38
Louisiana 2	14,542	469	E 173,409	E 475
Mississippi	2,355	76	28,103	77
New Mexico	6,156	199	71,533	196
Texas 2	63,683	2,054	760,145	2,083
Federal Offshore PAD District III	26,399	852	E 320,178	E 877
Adjustment 1	282	9	-194	-1
PAD District IV, Total	17,165	554	E 201,249	E 551
Colorado	2,520	81	28,224	77
Montana	2,092	67	24,907	68
Utah	2,917	94	35,447	97
Wyoming	9,871	318	E 112,597	E 308
Adjustment 1	-235	-8	74	(s)
PAD District V, Total	97,514	3,146	1,113,877	3,052
Alaska 2	63,324	2,043	715,855	1,961
South Alaska	1,331	43	16,145	44
North Slope	61,994	2,000	699,792	1,917
Adjustment for Alaska 1	0	0	-81	(s)
Arizona	11	(s)	130	(s)
California 2	30,807	994	364,572	999
Nevada	268	9	3,120	9
Federal Offshore PAD District V	2,610	84	31,088	85
Adjustment for Arizona, California, and Nevada 1	493	16	-889	-2
United States Total 2	E 258,551	E 8,340	E 3,033,336	E 8,311

¹ These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

² Includes the following current month offshore production (thousand barrels): Alaska: State - 4,569; California: State - 2,524; Louisiana: State - 2,017; Texas: State - 141; U.S. Total, including Federal offshore - 38,260.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: State Conservation Agencies and the U.S. Minerals Management Service.

**Natural Gas Proce
(Thousand Barrels)**

Total Production

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, February 1988

(Thousand Barrels, Except Where Noted)																			
Commodity	PAD District I			PAD District II			PAD District III					PAD District IV		United States					
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast			
Crude Oil (including lease condensate)	35,081	2,782	37,863	55,112	8,222	17,480	80,814	12,313	80,292	67,112	4,900	1,974	166,591	12,328	71,148	368,744			
Pentanes Plus	15	0	15	349	53	599	1,001	879	1,780	522	134	113	3,428	94	173	4,711			
Liquefied Petroleum Gases	81	17	98	2,175	299	810	3,284	717	1,475	2,710	132	74	5,108	538	727	9,755			
Ethane	0	0	0	0	0	0	0	0	0	49	0	0	49	0	0	49			
Propane	0	0	0	50	0	0	50	1	143	30	0	2	176	0	6	232			
Normal Butane	66	17	83	1,276	238	417	1,931	467	848	1,386	55	37	2,793	434	464	5,705			
Isobutane	15	0	15	849	61	393	1,303	249	484	1,245	77	35	2,090	104	257	3,769			
Other Liquids																			
Other Hydrocarbons and Alcohol	30	0	30	225	1	11	237	0	398	357	0	13	768	28	409	1,472			
Unfinished Oil (net)	4,672	245	4,917	-31	-87	472	354	229	5,121	-437	-35	8	4,886	-362	1,047	10,842			
Motor Gasoline Blending Components (net)	1,147	29	1,176	1,212	233	-55	1,390	457	69	1,304	-27	24	1,827	-271	-100	4,022			
Aviation Gasoline Blending Components (net)	0	0	0	1	0	-6	-5	0	0	0	0	0	0	0	5	0			
Total Input to Refineries	41,026	3,073	44,099	59,043	8,721	19,311	87,075	14,595	89,135	71,568	5,104	2,206	182,608	12,355	73,409	399,546			
Crude Oil Distillation																			
Gross Input (daily average)	1,213	95	1,308	1,904	281	604	2,789	429	2,827	2,370	165	68	5,859	424	2,527	12,907			
Operable Capacity (daily average)	1,369	108	1,477	2,235	312	734	3,281	581	3,558	2,974	255	76	7,443	540	3,174	15,916			
Operating Ratio (percent) ¹	88.6	88.4	88.6	85.2	90.1	82.2	85.0	73.8	79.5	79.7	64.9	90.1	78.7	78.5	79.6	81.1			
Downstream Processing																			
Fresh Feed Input (daily average)																			
Catalytic Cracking	554	14	567	655	102	215	972	162	1,085	707	28	23	2,005	147	635	4,325			
Catalytic Hydrocracking	55	3	59	100	0	4	103	0	153	147	0	0	300	6	385	854			
Cokers	67	0	67	152	48	70	271	8	189	376	12	0	585	17	431	1,370			
Crude Oil Qualities																			
Sulfur Content, Weighted Average (percent)	.99	.68	.96	.97	2.12	.54	.99	.71	1.03	1.31	1.37	.81	1.13	.82	1.23	1.09			
API Gravity, Weighted Average	32.41	38.96	32.90	35.50	30.29	37.80	35.47	38.50	33.79	30.28	34.52	40.54	32.82	35.88	25.24	32.04			
Operable Capacity (daily average)																			
Operating	1,369	108	1,477	2,235	312	734	3,281	581	3,558	2,974	255	76	7,443	540	3,174	15,916			
Idle	1,314	108	1,422	2,158	312	704	3,174	517	3,323	2,549	238	76	6,703	526	3,055	14,880			
	55	0	55	77	0	30	107	64	236	425	17	0	741	14	120	1,036			
Alaskan Crude Oil Receipts	1,276	0	1,276	708	0	0	708	0	8,279	6,698	0	0	14,977	0	36,212	53,173			

¹ Represents gross input divided by operable capacity.

(s) = Less than 500 barrels.

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 14. Refinery Net Production of Petroleum Products by PAD District, February 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III					PAD		United States		
	East Coast	Appalachian #1	Total	Ind., Ill., Ky. *	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas		La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mts.	Dist. V West Coast
								Inland	Gulf Coast							
Liquefied Refinery Gases	1,502	22	1,524	1,802	219	324	2,345	163	3,432	3,799	90	83	7,567	229	1,745	13,410
Ethane	0	0	0	0	0	0	0	-34	255	-1	0	0	220	0	33	253
Propane	1,364	22	1,386	1,847	213	435	2,495	282	2,603	1,778	71	67	4,801	203	942	9,827
Normal Butane	173	0	173	-40	-12	-111	-163	-184	574	2,009	19	16	2,434	26	657	3,127
Isobutane	-35	0	-35	-5	18	0	13	99	0	13	0	0	112	0	113	203
Finished Motor Gasoline	19,920	1,137	21,057	33,279	4,812	10,863	48,954	8,062	42,547	33,515	1,557	1,234	86,915	6,442	31,967	195,335
Finished Leaded Motor Gasoline	1,791	270	2,061	4,822	952	3,149	8,923	2,303	8,247	6,003	309	448	17,310	2,224	8,224	38,742
Finished Unleaded Motor Gasoline	18,129	867	18,996	28,457	3,860	7,714	40,031	5,759	34,300	27,512	1,248	786	69,605	4,218	23,743	156,593
Finished Aviation Gasoline	10	0	10	18	6	14	38	96	112	101	0	0	309	27	94	478
Naphtha-Type Jet Fuel	546	0	546	257	0	247	504	671	895	430	172	259	2,427	333	1,350	5,160
Kerosene-Type Jet Fuel	2,309	0	2,309	3,356	330	1,263	4,949	955	8,455	8,319	42	54	17,825	786	9,068	34,937
Kerosene	198	112	310	998	64	-96	966	39	1,229	649	16	0	1,933	16	195	3,420
Distillate Fuel Oil	8,672	901	9,573	11,335	2,163	4,621	18,119	2,874	16,675	14,242	1,484	433	35,708	2,990	11,386	77,776
Residual Fuel Oil	5,013	90	5,103	1,837	242	142	2,221	429	4,778	4,026	288	10	9,531	364	11,706	28,925
Naphtha < 400 Deg. for Petro. Feed. Use	210	0	210	731	0	93	824	105	2,112	51	29	1	2,298	-7	213	3,538
Other Oils > 400 Deg. for Petro. Feed. Use	4	0	4	601	0	64	665	139	2,871	1,525	0	0	4,535	1	230	5,435
Special Naphthas	16	5	21	268	0	99	367	93	838	-4	150	0	1,077	-1	86	1,550
Lubricants	377	322	699	527	0	325	852	23	1,802	646	329	0	2,800	26	675	5,052
Waxes	0	82	82	13	0	27	40	9	165	47	41	0	262	49	76	509
Petroleum Coke	1,246	21	1,267	2,175	478	655	3,308	310	3,254	3,601	121	15	7,301	299	3,643	15,818
Marketable	291	0	291	1,270	356	421	2,047	38	1,671	2,785	78	0	4,572	130	2,660	9,700
Catalyst	955	21	976	905	122	234	1,261	272	1,583	816	43	15	2,729	169	983	6,118
Asphalt and Road Oil	923	203	1,126	1,701	521	571	2,793	251	670	601	698	99	2,319	608	1,067	7,913
Still Gas	1,677	168	1,845	2,682	344	841	3,867	648	4,874	2,899	152	73	8,646	518	3,751	18,627
Miscellaneous Products	307	56	363	184	32	75	291	43	549	450	0	0	1,042	44	143	1,863
Fuel Use	7	0	7	0	0	0	0	4	0	34	0	0	38	0	0	45
Non-Fuel Use	300	56	356	184	32	75	291	39	549	416	0	0	1,004	44	143	1,838
Total Production	42,930	3,119	46,049	61,764	9,211	20,128	91,103	14,910	95,258	74,897	5,169	2,261	192,495	12,724	77,395	419,766
Processing Gain(-) or Loss(+) ¹	-1,904	-46	-1,950	-2,721	-490	-817	-4,028	-315	-6,123	-3,329	-65	-55	-9,887	-369	-3,986	-20,220

¹ Represents the arithmetic difference between input and output.

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District¹, February 1988

Table 15. Percent Refinery Yield of Petroleum Products by PAD District, February 1966																	
Commodity	PAD District I			PAD District II			PAD District III			PAD District IV		United States					
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.		New Mexico	Total	Rocky Mt.	Dist. V Coast	
Liquefied Refinery Gases	3.8	0.7	3.6	3.3	2.7	1.8	2.9	1.3	4.0	5.7	1.8	4.2	4.4	1.9	2.4	3.5	
Finished Motor Gasoline ²	46.9	36.0	46.1	53.2	51.9	52.9	53.0	47.9	45.5	42.9	27.1	51.0	44.2	50.6	42.6	46.2	
Finished Aviation Gasoline ³	.0	.0	.0	.0	.1	.1	.1	.8	.1	.2	.0	.0	.2	.2	.1	.1	
Naphtha-Type Jet Fuel	1.4	0	1.3	.5	.0	1.4	.6	5.4	1.0	.6	3.5	13.1	1.4	2.8	1.9	1.4	
Kerosene-Type Jet Fuel	5.8	.0	5.4	6.1	4.1	7.0	6.1	7.6	9.9	12.5	.9	2.7	10.4	6.6	12.6	9.2	
Kerosene	.5	3.7	.7	1.8	.8	.5	1.2	.3	1.4	1.0	.3	0	1.1	.1	.3	.9	
Distillate Fuel Oil	21.8	29.8	22.4	20.6	26.6	25.7	22.3	22.9	19.5	21.4	30.5	21.8	20.8	25.0	15.8	20.5	
Residual Fuel Oil	12.6	3.0	11.9	3.3	3.0	.8	2.7	3.4	5.6	6.0	5.9	.5	5.6	3.0	16.2	7.6	
Naphtha < 400 Deg. for Petro. Feed. Use	.5	0	.5	1.3	0	.5	1.0	.8	2.5	.1	.6	.1	1.3	.1	.3	.9	
Other Oils > 400 Deg. for Petro. Feed. Use	.0	0	.0	1.1	0	.4	.8	1.1	3.4	2.3	0	0	.6	.0	.3	1.4	
Special Naphthas	.0	.2	.0	.5	0	.6	.5	.7	1.0	0	3.1	0	.6	.0	.1	.4	
Lubricants	.9	10.6	1.6	1.0	0	1.8	1.0	.2	2.1	1.0	6.8	0	1.6	.2	.9	1.3	
Waxes	0	2.7	.2	.0	0	.2	.0	.1	.2	.1	.8	0	.2	.4	.1	.1	
Petroleum Coke	3.1	.7	3.0	3.9	5.9	3.6	4.1	2.5	3.8	5.4	2.5	.8	4.3	2.5	5.0	4.2	
Asphalt and Road Oil	2.3	6.7	2.6	3.1	6.4	3.2	3.4	2.0	.8	.9	14.3	5.0	1.4	5.1	1.5	2.1	
Still Gas	4.2	5.6	4.3	4.9	4.2	4.7	4.8	5.2	5.7	4.3	3.1	3.7	5.0	4.3	5.2	4.9	
Miscellaneous Products	.8	1.9	.8	.3	.4	.4	.4	.3	.6	.7	.0	0	.6	.4	.2	.5	
Processing Gain(-) or Loss(+) ⁴	-4.8	-1.5	-4.6	-4.9	-6.0	-4.6	-5.0	-2.5	-7.2	-5.0	-1.3	-2.8	-5.8	-3.1	-5.5	-5.3	

¹ Based on crude oil input and net reruns of unfinished oils.² Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.³ Based on finished aviation gasoline output plus net output of aviation gasoline blending components.⁴ Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, February 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ^{1 2}	35,475	23,070	71,944	1,687	3,904	136,080	4,692
Natural Gas Liquids	2,082	3,463	1,175	579	339	7,639	263
Pentanes Plus	217	40	214	75	0	546	19
Liquefied Petroleum Gases	1,865	3,423	961	504	339	7,093	245
Ethane	4	(s)	0	0	6	9	(s)
Propane	1,390	2,262	0	279	68	3,998	138
Normal Butane	283	697	577	135	159	1,851	64
Isobutane	188	464	385	90	106	1,234	43
Other Liquids ¹	4,223	0	5,446	0	307	9,976	344
Unfinished Oils ¹	2,962	0	5,446	0	0	8,408	290
Naphthas and Lighter	4	0	1,314	0	0	1,318	45
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	2,644	0	1,416	0	0	4,060	140
Residuum	314	0	2,716	0	0	3,030	104
Motor Gasoline Blending Components	1,261	0	0	0	307	1,568	54
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	44,015	719	3,039	98	1,289	49,159	1,695
Finished Motor Gasoline	9,982	77	39	39	439	10,576	365
Finished Leaded Motor Gasoline	347	0	39	0	11	397	14
Finished Unleaded Motor Gasoline	9,635	77	0	39	428	10,179	351
Finished Aviation Gasoline	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	77	0	0	3	80	3
Kerosene-Type Jet Fuel	1,290	269	0	0	291	1,849	64
Bonded Aircraft Fuel	997	269	0	0	286	1,551	53
Other	293	0	0	0	5	298	10
Kerosene	340	0	228	0	0	568	20
Distillate Fuel Oil	9,313	150	0	57	60	9,580	330
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	9,313	150	0	57	60	9,580	330
Residual Fuel Oil	22,289	78	227	0	388	22,982	792
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	22,289	78	227	0	388	22,982	792
Naphtha < 400 Deg. for Petro. Feed. Use	14	17	2,516	0	37	2,584	89
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0	0
Special Naphthas	9	26	0	0	6	41	1
Lubricants	300	11	21	0	28	360	12
Waxes	33	10	2	2	3	50	2
Petroleum Coke	0	0	6	0	23	23	1
Asphalt and Road Oil	423	0	6	0	11	440	15
Miscellaneous Products	22	4	0	0	0	26	1
Total Imports	85,794	27,252	81,604	2,364	5,839	202,854	6,995

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - February 1988

Commodity	Petroleum Administration for Defense Districts					Total (Daily Average)
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	69,790	50,367	148,300	3,306	7,507	279,270
Natural Gas Liquids	4,127	7,028	1,882	1,302	640	14,978
Pentanes plus	469	70	215	122	0	876
Liquefied Petroleum Gases	3,658	6,958	1,667	1,180	640	14,102
Ethane	5	(s)	0	0	14	19
Propane	2,082	4,730	308	659	122	7,901
Normal Butane	942	1,337	822	312	303	3,716
Isobutane	628	891	536	208	202	2,466
Other Liquids ¹	9,062	0	13,131	0	561	22,754
Unfinished Oils ¹	6,777	0	13,131	0	254	20,162
Naphthas and Lighter	28	0	2,514	0	254	2,796
Kerosene and Light Gas Oils	0	0	0	0	0	0
Heavy Gas Oils	6,074	0	2,810	0	0	8,884
Residuum	675	0	7,807	0	0	8,482
Motor Gasoline Blending Components	2,285	0	0	0	307	2,592
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	89,397	2,421	5,818	193	1,917	99,747
Finished Motor Gasoline	19,868	146	39	79	497	20,629
Finished Leaded Motor Gasoline	552	0	39	2	31	624
Finished Unleaded Motor Gasoline	19,316	146	0	77	466	20,005
Finished Aviation Gasoline	0	0	0	0	2	2
Naphtha-Type Jet Fuel	0	156	0	0	3	159
Kerosene-Type Jet Fuel	2,279	1,518	104	0	416	4,318
Bonded Aircraft Fuel	1,488	1,518	104	0	385	3,496
Other	791	0	0	0	31	822
Kerosene	842	0	716	0	0	1,558
Distillate Fuel Oil	20,050	295	2	112	123	20,582
Bonded Ships Bunkers	0	0	0	0	0	0
Other	20,050	295	2	112	123	20,582
Residual Fuel Oil	44,317	156	629	0	718	45,820
Bonded Ships Bunkers	0	0	0	0	0	0
Other	44,317	156	629	0	718	45,820
Naphtha < 400 Deg. for Petro. Feed. Use	249	39	3,866	0	37	4,191
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	27	55	379	0	15	476
Lubricants	624	22	23	0	37	706
Waxes	59	25	2	2	7	95
Petroleum Coke	20	0	20	0	46	86
Asphalt and Road Oil	984	2	38	0	16	1,040
Miscellaneous Products	78	7	0	0	0	85
Total Imports	172,376	59,816	169,130	4,801	10,626	416,749

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ February 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
Arab OPEC														
Algeria	4,214	1,054	314	0	0	144	0	390	2,346	0	1,927	6,175	10,389	358
Iraq	1,465	0	0	0	0	0	0	0	0	0	0	0	1,465	51
Kuwait	2,572	0	0	0	0	0	0	0	0	0	0	0	2,572	89
Saudi Arabia	34,138	297	1,775	0	820	102	0	661	0	0	115	3,770	37,908	1,307
United Arab Emirates	2,071	0	0	0	0	0	0	0	0	0	213	213	2,284	79
Subtotal Arab OPEC	44,460	1,351	2,089	0	820	246	0	1,051	2,346	0	2,255	10,158	54,618	1,883
Other OPEC														
Ecuador	407	0	0	0	0	0	0	0	190	0	0	190	597	21
Gabon	337	0	0	0	0	0	0	0	0	0	0	0	337	12
Indonesia	3,700	0	405	0	0	0	0	0	188	0	0	593	4,293	148
Nigeria	13,719	0	318	0	0	0	0	0	478	0	0	796	14,515	501
Venezuela	11,909	437	1,979	0	414	640	0	2,676	5,781	1	238	12,166	24,075	830
Subtotal Other OPEC	30,072	437	2,702	0	414	640	0	2,676	6,637	1	238	13,745	43,817	1,511
Other														
Angola	4,328	0	0	0	0	0	0	0	356	0	0	356	4,684	162
Argentina	0	0	0	0	0	0	0	0	698	0	15	713	713	25
Australia	2,161	0	0	0	0	0	0	0	0	0	80	80	2,241	77
Bahama Islands	0	0	0	0	0	0	0	0	1,686	0	0	1,686	1,686	58
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	9
Belgium	0	0	0	0	389	0	0	0	0	0	0	389	389	13
Benin	337	0	0	0	0	0	0	0	0	0	0	0	337	12
Brazil	150	0	0	0	1,634	0	0	645	771	0	14	3,064	3,064	106
Brunei	876	0	0	0	0	0	0	0	153	0	0	153	1,029	5
Cameroon	19,689	0	0	0	0	0	0	0	0	0	0	0	19,689	35
Canada	3,216	4,679	247	307	1,119	309	46	1,379	1,006	36	334	9,155	28,844	995
China, People's Republic	0	(s)	0	0	0	0	0	0	0	0	0	(s)	3,523	121
China, Taiwan	0	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
Colombia	0	0	0	0	0	0	0	0	1,861	0	0	1,861	1,861	64
Congo	0	0	0	0	0	0	0	0	121	0	0	121	121	4
Egypt	702	0	0	0	0	0	0	0	0	0	4	4	706	24
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	10
France	0	0	0	0	0	0	0	0	0	0	36	36	36	1
Germany, DR (E)	0	0	0	0	0	0	0	214	0	0	0	214	214	7
Germany, FD (W)	0	4	0	0	0	0	0	0	0	0	3	7	7	(s)
Greece	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Hungary	0	0	0	0	508	0	0	0	0	0	0	508	508	(s)
India	0	0	568	0	0	0	0	0	0	0	1	1	1	20
Italy	0	0	296	0	970	0	0	179	316	4	10	1,775	1,775	61
Japan	0	7	0	0	0	0	0	0	0	0	41	48	48	2
Korea, Republic	0	1	0	0	0	0	0	0	0	0	37	38	38	1
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	7
Mexico	17,973	611	0	0	0	390	0	424	642	0	238	2,304	20,277	699
Netherlands Antilles	0	0	0	0	0	0	0	0	596	0	0	596	596	21
Netherlands	0	1	0	0	1,935	0	0	247	129	0	80	2,392	2,392	82
Norway	1,563	0	259	0	0	0	0	0	0	0	0	259	1,822	63
Peru	0	0	0	0	0	0	0	0	1,392	0	0	1,392	1,392	48
Puerto Rico	0	0	62	0	0	0	0	0	0	0	393	455	455	16

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 February 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Romania	0	0	0	1,161	369	0	0	226	0	0	0	1,756	1,756	61
Singapore	0	0	0	0	0	0	0	0	388	0	0	388	388	13
South Africa	0	0	0	0	0	0	0	0	0	0	3	3	3	(s)
Spain	0	0	441	0	580	0	0	0	184	0	152	1,357	1,357	47
Sweden	0	1	0	0	0	0	0	372	330	0	75	778	778	27
Switzerland	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Trinidad and Tobago	1,836	0	0	0	0	207	0	0	668	0	0	875	2,711	93
United Kingdom	7,576	1	0	0	961	0	0	1,126	526	0	19	1,507	9,083	313
U.S.R.	0	0	0	0	0	0	0	0	27	0	0	1,153	1,153	40
Virgin Islands	0	0	1,469	100	585	138	522	831	2,149	0	0	5,794	5,794	200
Zaire	1,141	0	0	0	0	0	0	0	0	0	0	0	1,141	39
Subtotal Other	61,548	5,305	3,617	1,568	9,342	1,044	568	5,853	13,999	40	1,536	42,871	104,419	3,601
Total Imports	136,080	7,093	8,408	1,568	10,576	1,929	568	9,580	22,982	41	4,029	66,774	202,854	6,995
PAD District 1														
Arab OPEC														
Algeria	0	1,054	314	0	0	144	0	390	2,346	0	0	4,248	4,248	146
Saudi Arabia	4,228	297	0	0	564	101	0	661	0	0	0	1,623	5,851	202
United Arab Emirates	260	0	0	0	0	0	0	0	0	0	0	0	260	9
Subtotal Arab OPEC	4,488	1,351	314	0	564	245	0	1,051	2,346	0	0	5,871	10,359	357
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	190	0	0	190	190	7
Gabon	337	0	0	0	0	0	0	0	0	0	0	0	337	12
Indonesia	0	0	0	0	0	0	0	0	188	0	0	188	188	6
Nigeria	9,459	0	0	0	0	0	0	0	478	0	0	478	9,937	343
Venezuela	2,915	86	596	0	375	440	0	2,676	5,781	1	238	10,193	13,108	452
Subtotal Other OPEC	12,711	86	596	0	375	440	0	2,676	6,637	1	238	11,049	23,760	819
Other														
Angola	3,427	0	0	0	0	0	0	0	356	0	0	356	3,783	130
Argentina	0	0	0	0	0	0	0	0	698	0	0	698	698	24
Australia	551	0	0	0	0	0	0	0	0	0	80	80	631	22
Bahama Islands	0	0	0	0	0	0	0	0	1,459	0	0	1,459	1,459	50
Belgium	0	0	0	0	389	0	0	0	0	0	0	389	389	13
Benin	337	0	0	0	0	0	0	0	0	0	0	0	337	12
Brazil	0	0	0	0	1,634	0	0	645	771	0	14	3,064	3,064	106
Cameroon	876	0	0	0	0	0	0	0	153	0	0	153	1,029	35
Canada	1,587	421	4	0	820	139	46	1,112	928	4	81	3,555	5,142	177
China, People's Republic	1,330	(s)	0	0	0	0	0	0	0	0	0	(s)	1,330	46
China, Taiwan	0	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
Colombia	0	0	0	0	0	0	0	0	1,861	0	0	1,861	1,861	64
Congo	0	0	0	0	0	0	0	0	121	0	0	121	121	4
Egypt	702	0	0	0	0	0	0	0	0	0	2	2	704	24
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	10
France	0	(s)	0	0	0	0	0	0	0	0	15	15	15	1

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, ¹ February 1988 (continued)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Germany, DR (E)	0	0	0	0	0	0	0	214	0	0	0	214	214	7
Germany, FD (W)	0	4	0	0	0	0	0	0	0	0	3	7	7	(s)
Greece	0	0	0	0	508	0	0	0	0	0	0	508	508	18
Hungary	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Italy	0	0	296	0	970	0	0	179	316	4	10	1,775	1,775	61
Japan	0	(s)	0	0	0	0	0	0	0	0	13	13	13	(s)
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	7
Mexico	1,433	0	0	0	0	121	0	424	642	0	217	1,404	2,837	98
Netherlands Antilles	0	0	0	0	0	0	0	0	596	0	0	596	596	21
Netherlands	0	1	0	0	1,935	0	0	247	129	0	0	2,312	2,312	80
Norway	1,062	0	0	0	0	0	0	0	0	0	0	0	1,062	37
Peru	0	0	0	0	0	0	0	0	1,392	0	0	1,392	1,392	48
Puerto Rico	0	0	62	0	0	0	0	0	0	0	181	243	243	8
Romania	0	0	0	1,161	369	0	0	226	0	0	0	1,756	1,756	61
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Spain	0	0	221	0	580	0	0	372	184	0	152	1,137	1,137	39
Sweden	0	1	0	0	0	0	0	0	330	0	0	703	703	24
Switzerland	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Trinidad and Tobago	458	0	0	0	0	207	0	0	668	0	0	875	1,333	46
United Kingdom	5,789	0	0	0	961	0	0	0	526	0	0	1,487	7,276	251
U.S.S.R.	0	0	0	0	0	0	0	1,126	27	0	0	1,153	1,153	40
Virgin Islands	0	0	1,469	100	585	138	294	831	2,149	0	0	5,566	5,566	192
Zaire	724	0	0	0	0	0	0	0	0	0	0	724	724	25
Subtotal Other	18,276	427	2,052	1,261	9,043	605	340	5,586	13,306	8	771	33,399	51,675	1,782
Total Imports	35,475	1,865	2,962	1,261	9,982	1,290	340	9,313	22,289	9	1,009	50,319	85,794	2,958
PAD District II														
Arab OPEC														
Algeria	380	0	0	0	0	0	0	0	0	0	0	0	380	13
Saudi Arabia	3,248	0	0	0	0	0	0	0	0	0	0	0	3,248	112
Subtotal Arab OPEC	3,628	0	0	0	0	0	0	0	0	0	0	0	3,628	125
Other OPEC														
Ecuador	407	0	0	0	0	0	0	0	0	0	0	0	407	14
Nigeria	2,443	0	0	0	0	0	0	0	0	0	0	0	2,443	84
Venezuela	209	0	0	0	0	0	0	0	0	0	0	0	209	7
Subtotal Other OPEC	3,059	0	0	0	0	0	0	0	0	0	0	0	3,059	105
Other														
Canada	15,133	3,422	0	0	77	77	0	150	78	26	80	3,910	19,043	657
Mexico	1,250	0	0	0	0	269	0	0	0	0	0	269	1,519	52
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
United Kingdom	0	1	0	0	0	0	0	0	0	0	1	1	1	(s)
Subtotal Other	16,383	3,423	0	0	77	346	0	150	78	26	82	4,182	20,565	709
Total Imports	23,070	3,423	0	0	77	346	0	150	78	26	82	4,182	27,252	940

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, February 1988

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
Arab OPEC														
Algeria	3,834	0	0	0	0	0	0	0	0	0	1,927	1,927	5,761	199
Iraq	1,465	0	0	0	0	0	0	0	0	0	0	0	1,465	51
Kuwait	2,572	0	0	0	0	0	0	0	0	0	0	0	2,572	89
Saudi Arabia	26,662	0	1,775	0	0	0	0	0	0	0	115	1,890	28,552	985
United Arab Emirates	1,811	0	0	0	0	0	0	0	0	0	213	213	2,024	70
Subtotal Arab OPEC	36,344	0	1,775	0	0	0	0	0	0	0	2,255	4,030	40,374	1,392
Other OPEC														
Indonesia	705	0	405	0	0	0	0	0	0	0	0	405	1,110	38
Nigeria	1,817	0	318	0	0	0	0	0	0	0	0	318	2,135	74
Venezuela	8,785	351	1,383	0	39	0	0	0	0	0	0	1,773	10,558	364
Subtotal Other OPEC	11,307	351	2,106	0	39	0	0	0	0	0	0	2,496	13,803	476
Other														
Angola	901	0	0	0	0	0	0	0	0	0	0	0	901	31
Argentina	0	0	0	0	0	0	0	0	0	0	15	15	15	1
Australia	1,610	0	0	0	0	0	0	0	0	0	0	0	1,610	56
Bahama Islands	0	0	0	0	0	0	0	0	227	0	0	227	227	8
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	9
Canada	523	0	243	0	0	0	0	0	0	0	73	316	839	29
China, People's Republic	1,886	0	0	0	0	0	0	0	0	0	0	0	1,886	65
Egypt	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
France	0	0	0	0	0	0	0	0	0	0	21	21	21	1
India	0	0	568	0	0	0	0	0	0	0	0	568	568	20
Mexico	15,290	611	0	0	0	0	0	0	0	0	7	618	15,908	549
Netherlands	0	0	0	0	0	0	0	0	0	0	80	80	80	3
Norway	501	0	259	0	0	0	0	0	0	0	0	259	760	26
Puerto Rico	0	0	0	0	0	0	0	0	0	0	212	212	212	7
Spain	0	0	220	0	0	0	0	0	0	0	0	220	220	8
Sweden	0	0	0	0	0	0	0	0	0	0	75	75	75	3
Trinidad and Tobago	1,378	0	0	0	0	0	0	0	0	0	0	0	1,378	48
United Kingdom	1,787	0	0	0	0	0	0	0	0	0	19	19	1,806	62
Virgin Islands	0	0	0	0	0	0	228	0	0	0	0	228	228	8
Zaire	417	0	0	0	0	0	0	0	0	0	0	0	417	14
Subtotal Other	24,293	611	1,565	0	0	0	228	0	227	0	504	3,135	27,428	946
Total Imports	71,944	961	5,446	0	39	0	228	0	227	0	2,759	9,660	81,604	2,814
PAD District IV														
Other														
Canada	1,687	504	0	0	39	0	0	0	0	0	77	677	2,364	82
Subtotal Other	1,687	504	0	0	39	0	0	0	0	0	77	677	2,364	82
Total Imports	1,687	504	0	0	39	0	0	0	0	0	77	677	2,364	82

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ February 1988 (continued)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	256	1	0	0	0	0	0	257	257	9
Subtotal Arab OPEC	0	0	0	0	256	1	0	0	0	0	0	257	257	9
Other OPEC														
Indonesia	2,995	0	0	0	0	0	0	0	0	0	0	0	2,995	103
Venezuela	0	0	0	0	0	200	0	0	0	0	0	200	200	7
Subtotal Other OPEC	2,995	0	0	0	0	200	0	0	0	0	0	200	3,195	110
Other														
Brunei	150	0	0	0	0	0	0	0	0	0	0	0	150	5
Canada	759	332	0	0	183	93	0	60	0	6	23	696	1,455	50
China, People's Republic	0	0	0	307	0	0	0	0	0	0	0	307	307	11
Japan	0	6	0	0	0	0	0	0	0	0	28	34	34	1
Korea, Republic	0	1	0	0	0	0	0	0	0	0	37	38	38	1
Mexico	0	0	0	0	0	0	0	0	0	0	14	14	14	(s)
Singapore	0	0	0	0	0	0	0	0	388	0	0	388	388	13
Subtotal Other	909	339	0	307	183	93	0	60	388	6	102	1,478	2,387	82
Total Imports	3,904	339	0	307	439	294	0	60	388	6	102	1,935	5,839	201

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F, Petroleum Coke and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - February 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	8,714	1,798	677	0	0	0	0	990	4,582	0	3,159	11,350	20,064	334
Iraq	5,304	0	0	0	0	0	0	0	0	0	0	0	5,304	88
Kuwait	8,538	0	1,526	0	0	0	0	0	0	0	0	1,526	10,064	168
Saudi Arabia	58,267	297	3,787	0	1,260	211	0	1,673	0	0	115	7,344	65,611	1,094
United Arab Emirates	3,209	0	0	0	0	592	0	147	0	0	213	952	4,161	69
Subtotal Arab OPEC	84,032	2,095	5,990	0	1,260	948	0	2,810	4,582	0	3,487	21,172	105,204	1,753
Other OPEC														
Ecuador	2,346	0	0	0	0	0	0	0	1,165	0	0	1,165	3,511	59
Gabon	R 1,446	0	0	0	0	0	0	0	0	0	0	0	R 1,446	R 24
Indonesia	7,957	0	1,176	0	0	0	0	0	724	0	0	1,900	9,857	164
Iran	4 25	0	0	0	0	0	0	0	0	0	0	0	4 25	4 0
Nigeria	26,035	0	318	0	0	0	0	0	739	0	0	1,057	27,092	452
Venezuela	23,187	1,150	3,460	159	715	1,466	0	5,283	11,298	1	667	24,199	47,386	790
Subtotal Other OPEC	R 60,996	1,150	4,954	159	715	1,466	0	5,283	13,926	1	667	28,321	R 89,317	R 1,489
Other														
Angola	9,621	0	0	0	0	0	0	0	710	0	0	710	10,331	172
Argentina	0	0	0	0	223	0	0	0	780	47	15	1,065	1,065	18
Australia	4,489	0	0	0	0	0	0	0	0	0	80	80	4,569	76
Bahama Islands	0	0	0	0	0	0	0	5	3,213	0	0	3,218	3,218	54
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	5
Belgium	337	0	903	0	874	0	0	0	345	0	2	2,124	2,124	35
Benin	0	0	0	0	0	0	0	0	0	0	0	0	337	6
Brazil	166	166	15	0	2,979	0	0	1,065	1,044	0	15	5,284	5,284	88
Brunei	3,154	0	0	0	0	0	0	0	519	0	0	519	3,673	61
Cameroon	39,387	9,715	366	0	2,324	662	94	3,328	1,828	161	532	19,010	58,397	973
China, People's Republic	6,438	0	0	307	0	0	0	0	0	0	16	323	6,761	113
China, Taiwan	0	5	0	0	0	0	0	0	2,518	0	9	14	14	(S)
Colombia	4,255	0	0	0	0	0	0	0	271	0	0	271	271	113
Congo	1,476	0	0	0	0	0	0	0	0	0	4	4	1,480	25
Egypt	0	0	0	0	292	0	0	0	0	0	0	292	292	5
Finland	0	0	0	0	471	0	0	0	0	0	66	537	537	9
France	0	(S)	0	0	0	0	0	214	0	0	0	214	214	4
Germany, DR (E)	0	0	0	0	310	0	0	0	0	0	5	320	320	5
Germany, FD (W)	0	5	0	0	508	0	0	134	0	0	0	642	642	11
Greece	0	0	0	0	0	0	0	0	0	0	1	1	1	(S)
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	1,079	18
India	278	0	824	0	2,097	0	0	444	559	255	10	4,206	4,484	75
Italy	0	12	1,091	0	0	0	0	0	0	0	89	101	101	2
Japan	0	0	0	0	0	0	0	0	0	0	37	39	39	1
Korea, Republic	0	2	0	0	0	0	0	210	0	0	0	210	210	4
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	424	7
Malaysia	424	0	0	0	0	0	0	0	1,063	0	456	3,936	44,058	734
Mexico	40,122	949	0	0	230	0	0	739	1,615	0	0	1,845	1,845	31
Netherlands Antilles	0	0	0	0	3,017	0	0	539	616	8	110	4,291	4,291	72
Netherlands	0	1	0	0	0	0	0	0	61	0	52	372	3,089	51
Norway	2,717	0	259	0	0	0	0	0	0	0	0	171	171	3
Oman	0	0	171	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, January - February 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Peru	0	0	0	0	0	0	0	0	2,465	0	0	2,465	2,465	41
Puerto Rico	0	0	400	0	0	0	0	0	0	0	952	1,352	1,352	23
Romania	0	0	0	1,681	369	0	0	444	0	0	0	2,494	2,494	42
Singapore	0	0	0	0	0	0	0	0	718	0	0	718	718	12
South Africa	0	0	0	0	0	0	0	0	0	0	10	10	10	(s)
Spain	0	0	649	0	1,087	0	0	0	184	0	306	2,226	2,226	37
Sweden	0	1	0	0	0	0	0	372	330	0	110	813	813	14
Switzerland	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Trinidad and Tobago	4,170	0	0	0	138	230	115	201	1,078	0	0	1,762	5,932	99
Turkey	0	0	38	0	0	0	0	0	0	0	0	38	38	1
United Kingdom	R 14,771	1	496	0	2,350	0	0	185	898	0	49	3,979	R 18,750	R 312
U.S.S.R.	0	0	456	0	0	0	0	1,613	27	0	0	2,096	2,096	35
Virgin Islands	0	0	3,275	445	1,385	442	1,349	2,996	6,470	0	0	16,362	16,362	273
Zaire	2,453	0	0	0	0	0	0	0	0	0	0	0	2,453	41
Subtotal Other	R 134,242	10,857	9,218	2,433	18,654	2,064	1,558	12,489	27,312	475	2,927	87,986	R 222,228	R 3,704
Total Imports	279,270	14,102	20,162	2,592	20,629	4,477	1,558	20,582	45,820	476	7,081	137,479	416,749	6,946
PAD District I														
Arab OPEC														
Algeria	0	1,766	675	0	0	144	0	990	4,582	0	0	8,157	8,157	136
Saudi Arabia	8,270	297	0	0	1,004	198	0	1,673	0	0	0	3,173	11,443	191
United Arab Emirates	769	0	0	0	0	0	0	147	0	0	0	147	916	15
Subtotal Arab OPEC	9,039	2,063	675	0	1,004	343	0	2,810	4,582	0	0	11,477	20,516	342
Other OPEC														
Ecuador	1,939	0	0	0	0	0	0	0	1,165	0	0	1,165	3,104	52
Gabon	R 1,083	0	0	0	0	0	0	0	0	0	0	0	R 1,083	R 18
Indonesia	0	0	0	0	0	0	0	0	724	0	0	724	724	12
Nigeria	15,034	0	0	0	0	0	0	0	739	0	0	739	15,773	263
Venezuela	4,466	630	895	159	676	843	0	5,281	11,298	1	643	20,427	24,893	415
Subtotal Other OPEC	R 22,522	630	895	159	676	843	0	5,281	13,926	1	643	23,055	R 45,577	R 760
Other														
Angola	7,257	0	0	0	0	0	0	0	710	0	0	710	7,967	133
Argentina	0	0	0	0	223	0	0	0	780	11	0	1,014	1,014	17
Australia	551	0	0	0	0	0	0	0	0	0	80	80	631	11
Bahama Islands	0	0	0	0	0	0	0	5	2,986	0	0	2,991	2,991	50
Belgium	0	0	329	0	874	0	0	0	345	0	0	1,548	1,548	26
Benin	337	0	0	0	0	0	0	0	0	0	0	0	337	6
Brazil	0	0	15	0	2,979	0	0	1,065	1,044	0	15	5,118	5,118	85
Cameroon	2,436	0	0	0	0	0	0	0	519	0	0	519	2,955	49
Canada	3,293	955	9	0	1,858	300	94	2,798	1,672	11	125	7,822	11,115	185
China, People's Republic	2,776	0	0	0	0	0	0	0	0	0	16	16	2,792	47
China, Taiwan	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Colombia	2,396	0	0	0	0	0	0	0	2,518	0	0	2,518	4,914	82
Congo	0	0	0	0	0	0	0	0	271	0	0	271	271	5

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - February 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Egypt	1,476	0	0	0	0	0	0	0	0	0	2	2	1,478	25
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	5
France	0	(s)	0	0	471	0	0	0	0	0	15	486	486	8
Germany, DR (E)	0	0	0	0	0	0	0	214	0	0	0	214	214	4
Germany, FD (W)	0	5	0	0	310	0	0	0	0	0	5	320	320	5
Greece	0	0	0	0	508	0	0	134	0	0	0	642	642	11
Hungary	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Italy	278	1	746	0	2,097	0	0	444	559	4	10	3,861	4,139	69
Japan	0	(s)	0	0	0	0	0	0	0	0	35	35	35	1
Korea, Republic	0	0	0	0	0	0	0	0	0	0	0	1	1	(s)
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	4
Mexico	1,977	0	0	0	0	121	0	739	1,033	0	417	2,310	4,287	71
Netherlands Antilles	0	0	0	0	230	0	0	0	1,615	0	0	1,845	1,845	31
Netherlands	0	0	0	0	3,017	0	0	539	616	0	0	4,173	4,173	70
Norway	2,216	0	0	0	0	0	0	0	0	0	52	113	2,329	39
Peru	0	0	0	0	0	0	0	0	2,465	0	0	2,465	2,465	41
Puerto Rico	0	0	400	0	0	0	0	0	0	0	740	1,140	1,140	19
Romania	0	0	0	1,681	369	0	0	444	0	0	0	2,494	2,494	42
South Africa	0	0	0	0	1,087	0	0	0	184	0	3	2,006	2,006	33
Spain	0	0	429	0	0	0	0	372	330	0	306	703	703	12
Sweden	0	1	0	0	0	0	0	0	0	0	1	1	1	(s)
Switzerland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	902	0	0	0	138	230	115	201	1,078	0	0	1,762	2,664	44
United Kingdom	R 10,901	0	4	0	2,350	0	0	185	526	0	17	3,082	R 13,983	R 233
U.S.S.R.	0	0	0	0	0	0	0	1,613	27	0	0	1,640	1,640	27
Virgin Islands	0	0	3,275	445	1,385	442	633	2,996	6,470	0	0	15,646	15,646	261
Zaire	1,433	0	0	0	0	0	0	0	0	0	0	0	1,433	24
Subtotal Other	R 38,229	964	5,207	2,126	18,188	1,093	842	11,959	25,809	26	1,840	68,054	R 106,283	R 1,771
Total Imports	69,790	3,658	6,777	2,285	19,868	2,279	842	20,050	44,317	27	2,483	102,586	172,376	2,873
PAD District II														
Arab OPEC														
Algeria	1,232	0	0	0	0	0	0	0	0	0	0	0	1,232	21
Iraq	411	0	0	0	0	0	0	0	0	0	0	0	411	7
Saudi Arabia	6,577	0	0	0	0	0	0	0	0	0	0	0	6,577	110
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	13
Subtotal Arab OPEC	8,397	0	0	0	0	592	0	0	0	0	0	592	8,989	150
Other OPEC														
Ecuador	407	0	0	0	0	0	0	0	0	0	0	0	407	7
Nigeria	7,807	0	0	0	0	0	0	0	0	0	0	0	7,807	130
Venezuela	209	0	0	0	0	422	0	0	0	0	0	422	631	11
Subtotal Other OPEC	8,423	0	0	0	0	422	0	0	0	0	0	422	8,845	147

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - February 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District II (continued)														
Other														
Canada	30,668	6,957	0	0	146	156	0	295	156	55	158	7,923	38,591	643
Mexico	2,703	0	0	0	0	504	0	0	0	0	0	504	3,207	53
South Africa	0	0	0	0	0	0	0	0	0	0	7	7	7	(s)
Trinidad and Tobago	176	0	0	0	0	0	0	0	0	0	0	0	176	3
United Kingdom	0	1	0	0	0	0	0	0	0	0	0	1	1	0
Subtotal Other	33,547	6,958	0	0	146	660	0	295	156	55	165	8,435	41,982	700
Total Imports	50,367	6,958	0	0	146	1,674	0	295	156	55	165	9,449	59,816	997
PAD District III														
Arab OPEC														
Algeria	7,482	31	2	0	0	0	0	0	0	0	3,159	3,192	10,674	178
Iraq	4,893	0	0	0	0	0	0	0	0	0	0	0	4,893	82
Kuwait	8,538	0	1,526	0	0	0	0	0	0	0	0	1,526	10,064	168
Saudi Arabia	43,420	0	3,787	0	0	0	0	0	0	0	115	3,902	47,322	789
United Arab Emirates	2,263	0	0	0	0	0	0	0	0	0	213	213	2,476	41
Subtotal Arab OPEC	66,596	31	5,315	0	0	0	0	0	0	0	3,487	8,833	75,429	1,257
Other OPEC														
Gabon	363	0	0	0	0	0	0	0	0	0	0	0	363	6
Indonesia	2,564	0	922	0	0	0	0	0	0	0	0	922	3,486	58
Iran	4,25	0	0	0	0	0	0	0	0	0	0	0	4,25	40
Nigeria	3,194	0	318	0	0	0	0	0	0	0	0	318	3,512	59
Venezuela	18,512	520	2,565	0	39	0	0	2	0	0	24	3,150	21,662	361
Subtotal Other OPEC	24,658	520	3,805	0	39	0	0	2	0	0	24	4,390	29,048	484
Other														
Angola	2,364	0	0	0	0	0	0	0	0	0	0	0	2,364	39
Argentina	0	0	0	0	0	0	0	0	0	36	15	51	51	1
Australia	2,896	0	0	0	0	0	0	0	0	0	0	0	2,896	48
Bahama Islands	0	0	0	0	0	0	0	0	227	0	0	227	227	4
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	5
Belgium	0	0	574	0	0	0	0	0	0	0	2	576	576	10
Brazil	0	166	0	0	0	0	0	0	0	0	0	166	166	3
Cameroon	718	0	0	0	0	0	0	0	0	0	0	0	718	12
Canada	1,198	0	357	0	0	0	0	0	0	80	77	514	1,712	29
China, People's Republic	3,662	0	0	0	0	0	0	0	0	0	0	0	3,662	61
Colombia	1,859	0	0	0	0	0	0	0	0	0	0	0	1,859	31
Egypt	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
France	0	0	0	0	0	0	0	0	0	0	51	51	51	1
India	0	0	824	0	0	0	0	0	0	255	0	1,079	1,079	18
Italy	0	0	345	0	0	0	0	0	0	0	0	345	345	6
Japan	0	0	0	0	0	0	0	0	0	0	26	26	26	(s)
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	7
Mexico	35,442	949	0	0	0	104	0	0	30	0	16	1,099	36,541	609
Netherlands	0	0	0	0	0	0	0	0	0	8	110	118	118	2
Norway	501	0	259	0	0	0	0	0	0	0	0	259	760	13

See footnotes at end of table.

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District III (continued)														
Other (continued)														
Oman	0	0	171	0	0	0	0	0	0	0	0	171	171	3
Puerto Rico	0	0	0	0	0	0	0	0	0	0	212	212	212	4
Spain	0	0	220	0	0	0	0	0	0	0	0	220	220	4
Sweden	0	0	0	0	0	0	0	0	0	0	110	110	110	2
Trinidad and Tobago	3,092	0	0	0	0	0	0	0	0	0	0	3,092	3,092	52
Turkey	0	0	38	0	0	0	0	0	0	0	0	38	38	1
United Kingdom	3,870	0	492	0	0	0	0	0	372	0	32	896	4,766	79
U.S.S.R.	0	0	456	0	0	0	0	0	0	0	0	456	456	8
Virgin Islands	0	0	0	0	0	0	716	0	0	0	0	716	716	12
Zaire	1,020	0	0	0	0	0	0	0	0	0	0	0	1,020	17
Subtotal Other	57,046	1,115	4,011	0	0	104	716	0	629	379	653	7,607	64,653	1,078
Total Imports	148,300	1,667	13,131	0	39	104	716	2	629	379	4,164	20,830	169,130	2,819
PAD District IV														
Other														
Canada	3,306	1,180	0	0	79	0	0	112	0	0	124	1,495	4,801	80
Subtotal Other	3,306	1,180	0	0	79	0	0	112	0	0	124	1,495	4,801	80
Total Imports	3,306	1,180	0	0	79	0	0	112	0	0	124	1,495	4,801	80
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	256	13	0	0	0	0	0	269	269	4
Subtotal Arab OPEC	0	0	0	0	256	13	0	0	0	0	0	269	269	4
Other OPEC														
Indonesia	5,393	0	254	0	0	0	0	0	0	0	0	254	5,647	94
Venezuela	0	0	0	0	0	200	0	0	0	0	0	200	200	3
Subtotal Other OPEC	5,393	0	254	0	0	200	0	0	0	0	0	454	5,847	97
Other														
Australia	1,042	0	0	0	0	0	0	0	0	0	0	0	1,042	17
Brunei	150	0	0	0	0	0	0	0	0	0	0	0	150	3
Canada	922	623	0	0	241	206	0	123	0	15	48	1,256	2,178	36
China, People's Republic	0	0	0	307	0	0	0	0	0	0	0	307	307	5
China, Taiwan	0	5	0	0	0	0	0	0	0	0	9	14	14	(s)
Japan	0	12	0	0	0	0	0	0	0	0	28	40	40	1
Korea, Republic	0	1	0	0	0	0	0	0	0	0	37	38	38	1
Mexico	0	0	0	0	0	0	0	0	0	0	23	23	23	(s)
Singapore	0	0	0	0	0	0	0	0	718	0	0	718	718	12
Subtotal Other	2,114	640	0	307	241	206	0	123	718	15	145	2,395	4,509	75
Total Imports	7,507	640	254	307	497	419	0	123	718	15	145	3,119	10,626	177

1 Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

2 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

3 Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F, Petroleum Coke and miscellaneous products.

4 A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(s) - Less than 500 barrels. R - Revised data.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, February 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	
Crude Oil (including lease condensate) 1	0	657	0	0	3,661	4,318
Natural Gas Liquids						
Pentanes Plus	39	452	707	51	158	1,407
Liquefied Petroleum Gases	0	56	0	0	0	56
Ethane	39	395	707	51	158	1,350
Propane	(s)	113	(s)	0	0	114
Normal Butane	22	104	676	20	62	884
Isobutane	17	122	31	30	96	296
Finished Motor Gasoline	0	56	0	0	0	56
Naphtha-Type Jet Fuel	21	26	243	0	246	536
Kerosene-Type Jet Fuel	(s)	0	1	(s)	0	2
Kerosene	35	2	688	0	250	974
Distillate Fuel Oil	10	116	0	0	0	126
Residual Fuel Oil	12	3	1,312	0	1,768	3,095
Naphtha < 400 Deg. for Petro. Feed. Use	2	0	1,414	0	5,218	6,635
Other Oils > 400 Deg. for Petro. Feed. Use	44	20	41	(s)	15	119
Special Naphthas	1	1	0	0	141	143
Lubricants	13	5	87	0	2	107
Waxes	125	37	316	4	112	594
Petroleum Coke	5	2	15	0	10	31
Asphalt	127	31	4,153	0	2,678	6,989
Miscellaneous Products	1	1	(s)	1	1	4
Total Product Exports	27	2	32	(s)	6	67
Total Exports	462	695	9,010	56	10,605	20,827
		1,352	9,010	56	14,266	25,145
						867

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January - February 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ¹	0	870	0	0	10,026	10,896
Natural Gas Liquids	54	990	1,438	98	269	2,849
Pentanes Plus	0	119	0	0	0	119
Liquefied Petroleum Gases	54	871	1,438	98	269	2,730
Ethane	(s)	238	(s)	0	(s)	239
Propane	30	229	1,371	39	107	1,777
Normal Butane	24	284	66	59	162	595
Isobutane	0	119	0	0	0	119
Finished Motor Gasoline	30	51	428	(s)	274	783
Naphtha-Type Jet Fuel	1	0	11	(s)	0	13
Kerosene-Type Jet Fuel	67	2	2,619	0	810	3,499
Kerosene	16	119	(s)	0	1	136
Distillate Fuel Oil	30	49	2,455	0	3,103	5,636
Residual Fuel Oil	4	0	2,749	0	9,781	12,533
Naphtha < 400 Deg. for Petro. Feed. Use	86	30	72	1	26	216
Other Oils > 400 Deg. for Petro. Feed. Use	1	15	633	0	389	1,038
Special Naphthas	22	10	131	0	7	171
Lubricants	281	82	552	7	232	1,154
Waxes	9	4	37	0	17	66
Petroleum Coke	521	59	8,371	(s)	4,695	13,646
Asphalt	1	2	1	2	7	12
Miscellaneous Products	57	5	43	(s)	12	117
Total Product Exports	1,180	1,417	19,541	109	19,617	41,864
Total Exports	1,180	2,287	19,541	109	29,644	52,760

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, February 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Australia	0	1	0	0	0	0	16	10	1	244	0	(s)	278	10
Bahamas	0	19	25	32	133	433	0	2	0	0	0	(s)	644	22
Bahrain	0	(s)	0	0	0	0	0	(s)	0	61	0	(s)	62	2
Belgium & Luxembourg	0	0	0	0	0	0	4	22	(s)	1,089	0	1	1,116	38
Brazil	0	50	36	0	0	0	17	3	0	86	0	0	192	7
Cameroon	0	0	0	0	0	0	11	0	0	0	0	0	0	0
Canada	657	456	95	279	509	40	75	75	4	420	2	220	2,768	95
Chile	0	(s)	0	0	0	0	0	1	(s)	0	0	1	3	(s)
China, Taiwan	0	(s)	0	0	578	1,066	(s)	27	2	2	(s)	9	1,684	58
Colombia	0	0	0	0	0	0	(s)	3	0	0	0	1	4	(s)
Costa Rica	0	0	10	0	0	0	2	4	(s)	0	0	(s)	16	1
Denmark	0	0	0	0	0	0	0	1	(s)	0	0	1	257	9
Dominican Republic	0	0	0	0	0	0	0	5	(s)	0	0	(s)	5	(s)
Ecuador	0	0	0	0	(s)	0	(s)	1	0	0	0	(s)	2	(s)
Egypt	0	0	0	0	0	0	0	2	0	0	0	(s)	2	(s)
El Salvador	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Finland	0	0	0	0	0	0	0	3	0	0	0	0	3	(s)
France	0	2	0	0	0	0	0	3	2	0	0	5	12	(s)
French Pacific Isl	0	1	0	0	0	0	0	0	0	0	0	0	1	(s)
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Greece	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Guatemala	0	84	0	0	0	0	3	7	0	0	0	(s)	94	(s)
Guinea	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Honduras	0	0	0	0	0	0	0	8	0	0	0	0	8	(s)
Hong Kong	0	0	0	0	0	0	0	0	0	0	0	0	2	(s)
India	0	0	0	0	0	0	0	1	(s)	0	(s)	17	18	1
Indonesia	0	0	0	0	0	0	(s)	3	0	0	0	0	5	(s)
Israel	0	0	0	0	0	0	2	0	0	0	0	1	2	(s)
Italy	0	52	3	0	0	0	(s)	9	(s)	882	0	8	954	33
Ivory Coast	0	0	0	0	0	192	0	2	0	0	0	1	(s)	(s)
Jamaica	0	9	297	454	1,286	1,367	(s)	46	3	1,421	0	62	203	7
Japan	0	(s)	0	0	0	0	14	2	0	0	0	1	4,951	171
Jordan	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Korea, Republic	0	2	0	0	0	684	1	14	(s)	31	(s)	49	781	27
Kuwait	0	(s)	0	0	0	0	0	1	0	0	0	1	2	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	1	(s)	0	0	0	0	(s)
Mexico	0	600	1	1	0	945	0	98	13	90	0	(s)	1,761	61
Netherlands	0	(s)	9	0	0	0	15	3	(s)	705	(s)	17	750	26
Netherlands Antilles	0	0	0	0	(s)	735	4	4	0	0	0	(s)	739	25
New Zealand	0	0	0	0	0	0	1	5	(s)	126	0	1	133	5
Nigeria	0	0	0	0	0	0	0	2	1	91	0	0	3	(s)
Norway	0	2	0	0	0	0	0	3	0	0	0	(s)	95	3
Pacific Trust Terr.	0	0	34	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Panama	0	0	25	196	125	300	1	114	0	0	0	5	578	20
Peru	0	20	0	401	0	0	1	2	(s)	(s)	0	1	646	22
Philippines	0	0	0	0	0	0	1	10	(s)	0	0	1	12	(s)
Puerto Rico	340	3	0	0	0	1	(s)	23	1	0	0	9	378	13
Rep. of South Africa	0	1	0	0	0	0	0	1	(s)	0	(s)	0	2	(s)
Saudi Arabia	0	22	0	0	0	0	0	9	0	0	0	3	34	1
Singapore	0	0	0	0	0	843	3	3	(s)	0	0	1	849	29

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, February 1988 (continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Spain	0	0	0	0	0	0	0	3	(s)	810	0	1	814	28
Surinam	0	17	0	0	0	0	0	(s)	0	0	0	0	17	1
Sweden	0	0	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Switzerland	0	(s)	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
Thailand	0	(s)	0	0	0	0	3	4	(s)	0	0	42	49	2
Thailand and Tobago	0	3	0	0	0	0	(s)	1	(s)	0	0	(s)	4	(s)
Turkey	0	0	0	0	0	0	0	15	0	0	0	2	17	1
United Arab Emirates	0	0	0	0	0	0	0	2	0	28	(s)	1	30	1
United Kingdom	0	(s)	0	0	1	0	1	1	1	509	1	13	526	18
U.S.S.R.	0	0	0	0	0	0	0	1	0	67	0	5	73	3
Uruguay	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela	0	(s)	0	0	0	0	(s)	3	(s)	(s)	0	4	8	(s)
Virgin Islands	3,321	2	0	0	0	0	0	2	0	0	0	3	3,328	115
West Germany	0	3	0	0	0	0	8	13	2	74	(s)	2	101	3
Yugoslavia	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Other	0	(s)	1	13	62	30	0	12	(s)	0	(s)	2	121	4
Total	4,318	1,350	536	976	3,095	6,635	107	594	31	6,989	4	511	25,145	867

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - February 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphtas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	0	2	(s)	1	3	0	6	(s)
Australia	0	1	0	0	0	590	17	18	(s)	555	0	11	1,194	20
Bahamas	0	29	103	48	317	1,329	0	7	(s)	0	0	(s)	1,834	31
Bahrain	0	(s)	0	0	(s)	0	0	(s)	0	61	0	(s)	62	1
Belgium & Luxembourg	0	16	0	0	0	0	4	32	(s)	1,722	0	1	1,775	30
Brazil	0	50	36	0	0	0	17	11	(s)	86	0	1	201	3
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	870	985	155	641	795	40	20	162	(s)	8	4	343	4,485	75
Chile	0	(s)	0	0	0	0	(s)	32	(s)	0	0	2	35	1
China, Taiwan	303	1	0	0	581	2,149	(s)	69	(s)	42	(s)	18	3,167	53
Colombia	0	0	0	0	0	0	(s)	6	(s)	0	0	2	9	(s)
Costa Rica	0	(s)	10	0	0	0	2	10	(s)	0	0	2	24	(s)
Denmark	0	(s)	0	0	0	0	0	1	(s)	255	0	1	258	(s)
Dominican Republic	0	0	0	0	0	0	0	8	(s)	0	0	2	9	(s)
Ecuador	0	0	0	10	(s)	0	2	5	(s)	0	0	2	20	(s)
Egypt	0	0	0	0	0	0	0	2	(s)	0	0	0	2	(s)
El Salvador	0	0	0	0	0	0	1	3	(s)	0	0	0	2	(s)
Finland	0	0	0	0	0	0	0	0	(s)	0	0	0	5	(s)
France	0	2	0	0	0	0	0	6	(s)	0	0	0	6	(s)
French Pacific Isl	0	1	0	0	392	0	0	7	(s)	3	0	210	571	10
Ghana	0	0	0	0	0	0	0	1	(s)	0	0	0	394	7
Greece	0	1	0	0	0	0	0	0	(s)	43	0	0	43	1
Guatemala	0	116	35	0	291	0	3	14	(s)	345	0	(s)	347	6
Guinea	0	0	0	0	0	0	0	0	(s)	0	0	1	459	8
Honduras	0	16	0	0	5	0	0	2	(s)	0	0	0	2	(s)
Hong Kong	0	1	0	0	0	0	0	9	(s)	0	0	0	32	1
India	0	0	0	0	0	0	0	2	(s)	0	0	1	4	(s)
Indonesia	0	0	0	0	0	0	2	4	(s)	0	0	18	23	(s)
Iran	0	0	0	0	0	0	0	5	(s)	0	0	0	8	(s)
Israel	0	0	0	0	0	0	0	0	(s)	0	0	0	0	0
Italy	0	107	3	0	0	0	18	2	(s)	134	0	2	138	2
Ivory Coast	0	0	0	0	0	414	0	11	(s)	1,986	0	214	2,340	39
Jamaica	0	9	0	0	0	0	0	0	(s)	0	0	(s)	(s)	(s)
Japan	0	0	388	2,455	2,366	2,025	27	11	(s)	0	0	2	436	7
Jordan	0	0	0	0	0	0	0	81	(s)	2,916	0	91	10,335	172
Korea, Republic	0	4	1	0	1	1,100	4	2	(s)	0	0	0	2	(s)
Kuwait	0	1	0	0	0	0	0	30	(s)	373	(s)	243	1,757	29
Lebanon	0	0	0	0	0	0	0	1	(s)	0	0	1	3	(s)
Liberia	0	0	0	0	0	0	0	1	(s)	0	0	0	1	(s)
Malaysia	0	0	0	0	0	0	0	0	(s)	0	0	0	0	0
Mexico	0	1,183	0	0	0	0	0	2	(s)	0	0	0	3	(s)
Netherlands	0	(s)	1	16	0	2,014	4	190	(s)	141	(s)	25	3,606	60
Netherlands Antilles	0	0	9	0	0	0	15	5	(s)	1,363	(s)	145	1,539	26
New Zealand	0	0	0	0	(s)	735	0	5	(s)	0	0	1	741	12
Nigeria	0	0	0	0	0	0	1	5	(s)	126	0	1	134	2
Norway	0	0	0	0	0	0	0	2	(s)	0	0	0	3	(s)
Pacific Trust Terr.	0	0	0	0	0	0	0	3	(s)	178	(s)	0	182	3
Panama	0	0	34	0	0	300	7	116	(s)	0	0	0	(s)	(s)
Peru	0	20	25	325	620	0	1	6	(s)	0	0	6	668	11
Philippines	0	0	0	0	0	0	2	17	(s)	0	0	1	999	17
Puerto Rico	0	6	0	0	0	2	0	43	(s)	0	0	2	21	(s)
Rep. of South Africa	1,138	1	0	0	0	0	(s)	3	(s)	0	(s)	18	1,210	20
Saudi Arabia	0	38	0	0	0	0	(s)	14	(s)	0	0	4	56	1

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - February 1988

(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Singapore	0	1	0	0	0	843	4	6	(s)	0	0	1	855	14
Spain	0	(s)	0	0	0	319	0	7	(s)	1,098	0	112	1,538	26
Surinam	0	35	0	0	0	0	0	5	0	0	0	0	40	1
Sweden	0	0	0	0	0	0	0	2	(s)	0	0	1	3	(s)
Switzerland	0	(s)	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
Thailand	0	(s)	0	0	0	0	3	7	(s)	0	0	90	100	2
Trinidad and Tobago	0	3	0	0	0	0	(s)	1	(s)	0	0	(s)	4	(s)
Turkey	0	0	0	0	0	0	0	15	0	332	0	2	349	6
United Arab Emirates	0	(s)	0	0	0	0	0	18	0	28	(s)	1	47	1
United Kingdom	0	1	0	0	1	204	1	3	2	509	1	18	739	12
U.S.S.R.	0	0	0	0	0	0	0	56	0	140	0	6	202	3
Uruguay	0	0	0	0	0	0	0	1	(s)	0	0	1	1	(s)
Venezuela	0	(s)	0	2	(s)	0	(s)	9	(s)	202	0	7	220	4
Virgin Islands	8,585	3	0	0	0	0	0	15	0	0	0	4	8,606	143
West Germany	0	5	(s)	0	0	0	10	16	2	74	1	2	110	2
Yugoslavia	0	0	0	0	0	0	0	(s)	0	95	0	(s)	95	2
Other	0	90	2	13	63	469	(s)	23	(s)	29	(s)	4	692	12
Total	10,896	2,730	783	3,511	5,636	12,533	171	1,154	66	13,646	7	1,626	52,760	879

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada, and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 29, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.	PAD Dist. V West Coast
Crude Oil (incl. lease condensate)																
Refinery	--	--	12,505	--	--	--	12,379	--	--	--	--	--	48,647	1,948	22,115	97,594
Tank Farms and Pipelines	--	--	1,391	--	--	--	57,124	--	--	--	--	--	101,795	10,201	30,234	200,745
Leases	--	--	40	--	--	--	1,399	--	--	--	--	--	16,789	1,188	0	21,233
Strategic Petroleum Reserve ¹	--	--	0	--	--	--	0	--	--	--	--	--	544,146	0	0	544,146
Alaskan In-Transit	--	--	0	--	--	--	0	--	--	--	--	--	0	0	28,263	28,263
Total	--	--	13,936	--	--	--	70,902	--	--	--	--	--	711,377	13,337	82,429	891,981
Total Stocks, All Oils (excl. Crude Oil)																
Refinery	44,524	3,247	47,771	38,020	7,068	15,550	60,638	8,819	72,091	44,697	5,746	1,100	132,453	13,260	60,264	314,386
Bulk Terminal	--	--	101,654	--	--	--	64,115	--	--	--	--	--	58,573	3,038	22,503	249,883
Pipeline	--	--	25,835	--	--	--	35,644	--	--	--	--	--	40,454	2,621	4,963	109,517
Natural Gas Processing Plant	70	47	117	412	47	1,829	2,288	1,173	3,075	2,073	200	113	6,634	218	79	9,336
Total	--	--	175,377	--	--	--	162,685	--	--	--	--	--	238,114	19,137	87,809	683,122
Pentanes Plus																
Refinery	17	0	17	143	57	96	296	273	205	57	1	17	553	2	36	904
Bulk Terminal	--	--	18	--	--	--	1,387	--	--	--	--	--	1,237	0	2	2,644
Pipeline	--	--	0	--	--	--	429	--	--	--	--	--	835	79	0	1,343
Natural Gas Processing Plant	3	9	12	26	9	384	419	340	390	608	78	15	1,431	79	21	1,962
Total	--	--	47	--	--	--	2,531	--	--	--	--	--	4,056	160	59	6,853
Liquefied Petroleum Gases																
Refinery	679	11	690	1,438	200	465	2,103	808	1,778	2,167	34	25	4,812	340	613	8,558
Bulk Terminal	--	--	1,485	--	--	--	8,754	--	--	--	--	--	28,692	38	480	39,449
Pipeline	--	--	1,113	--	--	--	6,897	--	--	--	--	--	6,392	434	0	14,836
Natural Gas Processing Plant	67	38	105	386	38	1,445	1,869	816	2,679	1,464	120	98	5,177	139	58	7,348
Total	--	--	3,393	--	--	--	19,623	--	--	--	--	--	45,073	951	1,151	70,191
Ethane																
Refinery	20	0	20	1	0	0	1	64	287	0	0	0	351	0	0	372
Bulk Terminal	--	--	3	--	--	--	1,400	--	--	--	--	--	11,602	0	0	13,005
Pipeline	--	--	0	--	--	--	1,469	--	--	--	--	--	2,285	138	0	3,892
Natural Gas Processing Plant	0	0	0	17	0	133	150	78	918	120	11	17	1,144	4	0	1,298
Total	--	--	23	--	--	--	3,020	--	--	--	--	--	15,382	142	0	18,567

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 29, 1988 (continued)

(Thousand Barrels)																
Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Propane																
Refinery	395	3	398	764	29	127	920	191	756	971	7	3	1,928	73	175	3,494
Bulk Terminal	--	--	1,030	--	--	--	4,826	--	--	--	--	--	9,634	37	151	15,678
Pipeline	--	--	1,042	--	--	--	3,789	--	--	--	--	--	2,807	170	0	7,808
Natural Gas Processing Plant	27	31	58	330	27	965	1,322	459	953	165	44	50	1,671	98	42	3,191
Total	--	--	2,528	--	--	--	10,857	--	--	--	--	--	16,040	378	368	30,171
Normal Butane																
Refinery	199	8	207	473	87	223	783	327	466	903	9	14	1,719	175	327	3,211
Bulk Terminal	--	--	451	--	--	--	1,360	--	--	--	--	--	3,283	1	133	5,228
Pipeline	--	--	71	--	--	--	1,168	--	--	--	--	--	833	82	0	2,154
Natural Gas Processing Plant	37	2	39	21	11	252	284	234	436	464	42	24	1,200	31	10	1,564
Total	--	--	768	--	--	--	3,595	--	--	--	--	--	7,035	289	470	12,157
Isobutane																
Refinery	65	0	65	200	84	115	399	226	269	293	18	8	814	92	111	1,481
Bulk Terminal	--	--	1	--	--	--	1,168	--	--	--	--	--	4,173	0	196	5,538
Pipeline	--	--	0	--	--	--	471	--	--	--	--	--	467	44	0	982
Natural Gas Processing Plant	3	5	8	18	0	95	113	45	372	715	23	7	1,162	6	6	1,295
Total	--	--	74	--	--	--	2,151	--	--	--	--	--	6,616	142	313	9,296
Other Hydrocarbons and Alcohol																
Refinery	34	0	34	91	1	30	122	1	157	118	0	6	282	7	51	496
Total	--	--	34	--	--	--	122	--	--	--	--	--	282	7	51	496
Unfinished Oils																
Refinery																
Naphthas and Lighter	3,546	198	3,744	2,669	134	1,129	3,932	818	7,789	4,135	164	48	12,954	680	4,550	25,860
Kerosene and Light Gas Oils	2,923	207	3,130	1,648	156	270	2,074	383	5,846	2,315	180	1	8,725	364	3,558	17,851
Heavy Gas Oils	3,590	199	3,789	3,085	157	1,933	5,175	561	7,831	7,078	343	111	15,924	931	9,945	35,764
Residuum	1,020	130	1,150	2,297	5	1,041	3,343	321	5,084	3,298	147	0	8,850	410	4,558	18,311
Total	11,079	734	11,813	9,699	452	4,373	14,524	2,083	26,550	16,826	834	160	46,453	2,385	22,611	97,786

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 29, 1988 (continued)

Commodity		PAD District I			PAD District II			PAD District III				PAD District IV		United States		
		East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.	Dist. V West Coast
Motor Gasoline Blending Components																
Refinery	4,976	75	5,051	4,943	456	1,701	7,100	1,017	7,139	4,814	200	203	13,373	2,400	8,608	36,532
Bulk Terminal	--	--	198	--	--	--	414	--	--	--	--	--	1,034	41	15	1,702
Pipeline	--	--	0	--	--	--	78	--	--	--	--	--	10	0	88	88
Total	--	--	5,249	--	--	--	7,592	--	--	--	--	--	14,417	2,441	8,623	38,322
Aviation Gasoline Blending Components																
Refinery	0	0	0	147	0	11	158	0	0	50	0	0	50	0	47	255
Total	--	--	0	--	--	--	158	--	--	--	--	--	50	0	47	255
Total Finished Motor Gasoline																
Refinery	12,265	529	12,794	6,535	1,425	3,431	11,391	1,923	11,238	5,061	1,050	171	19,443	2,413	8,360	54,401
Bulk Terminal	--	--	39,168	--	--	--	29,767	--	--	--	--	--	11,356	1,779	11,870	93,940
Pipeline	--	--	13,410	--	--	--	17,449	--	--	--	--	--	19,346	1,249	2,544	53,998
Total	--	--	65,372	--	--	--	58,607	--	--	--	--	--	50,145	5,441	22,774	202,339
Finished Leaded Motor Gasoline																
Refinery	1,543	220	1,763	1,669	429	1,278	3,376	625	2,965	1,289	155	69	5,103	1,060	2,751	14,053
Bulk Terminal	--	--	8,469	--	--	--	9,046	--	--	--	--	--	3,502	805	4,124	25,946
Pipeline	--	--	2,437	--	--	--	4,417	--	--	--	--	--	3,842	487	473	11,656
Total	--	--	12,669	--	--	--	16,839	--	--	--	--	--	12,447	2,352	7,348	51,655
Finished Unleaded Motor Gasoline																
Refinery	10,722	309	11,031	4,866	996	2,153	8,015	1,298	8,273	3,772	895	102	14,340	1,353	5,609	40,348
Bulk Terminal	--	--	30,699	--	--	--	20,721	--	--	--	--	--	7,854	974	7,746	67,994
Pipeline	--	--	10,973	--	--	--	13,032	--	--	--	--	--	15,504	762	2,071	42,342
Total	--	--	52,703	--	--	--	41,768	--	--	--	--	--	37,698	3,089	15,426	150,684
Finished Aviation Gasoline																
Refinery	86	0	86	90	22	14	126	95	289	115	0	0	499	49	167	927
Bulk Terminal	--	--	312	--	--	--	314	--	--	--	--	--	58	20	296	1,000
Pipeline	--	--	0	--	--	--	108	--	--	--	--	--	45	0	153	153
Total	--	--	398	--	--	--	548	--	--	--	--	--	602	69	463	2,080

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 29, 1988 (continued)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV		United States
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	PAD Rocky Mt.	
Naphtha-Type Jet Fuel															
Refinery	289	0	289	260	22	119	401	239	405	490	132	131	1,397	283	3,037
Bulk Terminal	--	--	866	--	--	--	471	--	--	--	--	--	426	15	2,261
Pipeline	--	--	196	--	--	--	154	--	--	--	--	--	545	102	1,433
Total	--	--	1,351	--	--	--	1,026	--	--	--	--	--	2,368	400	6,731
Kerosene-Type Jet Fuel															
Refinery	1,729	29	1,758	1,285	149	407	1,841	380	2,920	2,346	26	40	5,712	463	13,057
Bulk Terminal	--	--	3,443	--	--	--	2,609	--	--	--	--	--	2,319	176	10,855
Pipeline	--	--	3,700	--	--	--	3,015	--	--	--	--	--	5,243	214	12,977
Total	--	--	8,901	--	--	--	7,465	--	--	--	--	--	13,274	853	36,889
Kerosene															
Refinery	129	72	201	630	64	127	821	64	722	447	33	0	1,266	67	2,644
Bulk Terminal	--	--	2,076	--	--	--	786	--	--	--	--	--	271	38	3,225
Pipeline	--	--	314	--	--	--	244	--	--	--	--	--	485	0	1,062
Total	--	--	2,591	--	--	--	1,851	--	--	--	--	--	2,022	105	6,931
Distillate Fuel Oils															
Refinery	6,006	390	6,396	4,733	1,147	2,585	8,465	760	6,674	3,115	826	76	11,451	1,747	32,189
Bulk Terminal	--	--	30,633	--	--	--	14,096	--	--	--	--	--	4,419	882	54,347
Pipeline	--	--	7,102	--	--	--	7,228	--	--	--	--	--	7,234	543	23,098
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	6	0	0	0	6	0	6
Total	--	--	44,131	--	--	--	29,789	--	--	--	--	--	23,110	3,172	109,640
Residual Fuel Oils															
Refinery	3,265	58	3,323	1,722	254	126	2,102	237	4,119	3,405	165	14	7,940	362	19,572
Bulk Terminal	--	--	16,237	--	--	--	967	--	--	--	--	--	6,635	0	25,764
Pipeline	--	--	0	--	--	--	0	--	--	--	--	--	60	0	129
Total	--	--	19,560	--	--	--	3,069	--	--	--	--	--	14,635	362	45,465
Naphtha < 400 Deg. Petro. Feed. Use															
Refinery	484	0	484	434	0	70	504	49	1,054	260	26	5	1,394	21	2,537
Total	484	0	484	434	0	70	504	49	1,054	260	26	5	1,394	21	2,537
Other Oils > 400 Deg. Petro. Feed. Use															
Refinery	4	0	4	6	0	0	6	79	1,342	144	0	0	1,565	3	1,732
Total	4	0	4	6	0	0	6	79	1,342	144	0	0	1,565	3	1,732

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, February 29, 1988 (continued)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico		Total	PAD Rocky Mt.	PAD Dist. V West Coast
Special Naphthas																
Refinery	474	34	508	200	0	121	321	86	1,114	35	165	0	1,400	8	131	2,368
Bulk Terminal	--	--	644	--	--	--	311	--	--	--	--	--	173	0	19	1,147
Total	--	--	1,152	--	--	--	632	--	--	--	--	--	1,573	8	150	3,515
Lubricants																
Refinery	375	890	1,265	1,040	0	184	1,224	28	4,169	1,445	424	0	6,066	94	1,136	9,785
Bulk Terminal	--	--	2,060	--	--	--	1,095	--	--	--	--	--	432	2	508	4,097
Total	--	--	3,325	--	--	--	2,319	--	--	--	--	--	6,498	96	1,644	13,882
Waxes																
Refinery	0	75	75	74	0	25	99	37	255	162	15	0	469	91	116	850
Total	--	--	75	--	--	--	99	--	--	--	--	--	469	91	116	850
Petroleum Coke																
Refinery	544	0	544	444	879	178	1,501	9	510	2,711	213	0	3,443	31	1,666	7,185
Total	544	0	544	444	879	178	1,501	9	510	2,711	213	0	3,443	31	1,666	7,185
Asphalt and Road Oil																
Refinery	1,725	315	2,040	3,959	1,937	1,475	7,371	624	1,038	640	1,601	252	4,155	2,468	1,964	17,998
Bulk Terminal	--	--	3,754	--	--	--	3,002	--	--	--	--	--	681	46	174	7,657
Total	--	--	5,794	--	--	--	10,373	--	--	--	--	--	4,836	2,514	2,138	25,655
Miscellaneous Products																
Refinery	364	35	399	147	3	12	162	27	413	289	1	0	730	26	256	1,573
Bulk Terminal	--	--	760	--	--	--	142	--	--	--	--	--	840	1	52	1,795
Pipeline	--	--	0	--	--	--	42	--	--	--	--	--	259	0	99	400
Natural Gas Processing Plant	0	0	0	0	0	0	0	17	0	1	2	0	20	0	0	20
Total	--	--	1,159	--	--	--	346	--	--	--	--	--	1,849	27	407	3,788
Total Stocks, All Oils	--	--	189,313	--	--	--	233,587	--	--	--	--	--	949,491	32,474	170,238	1,575,103

1 Includes 38,395 thousand barrels of domestic crude oil.

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, February 29, 1988
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	10,232	41,730	2,277	37,029	19,560
Connecticut	334	1,654	172	1,923	518
Delaware, D.C., Maryland	349	2,150	116	1,945	1,175
Florida	1,106	5,089	119	1,915	1,244
Georgia	1,155	2,267	92	1,100	260
Maine, New Hampshire, Vermont	365	1,116	160	1,821	816
Massachusetts	264	1,962	86	3,063	1,910
New Jersey	1,851	11,899	110	9,705	6,786
New York	829	4,158	315	4,909	3,190
North Carolina	1,042	1,877	317	1,446	267
Pennsylvania	1,423	5,271	438	4,439	1,949
Rhode Island	119	502	w	1,209	w
South Carolina	528	1,052	113	725	w
Virginia	735	2,565	215	2,679	967
West Virginia	132	168	w	150	w
PAD District II Total	12,422	28,736	1,607	22,561	3,069
Illinois	2,227	5,314	398	4,115	1,250
Indiana	1,584	3,979	129	2,595	398
Iowa	635	1,208	w	1,194	w
Kansas, Nebraska	1,296	2,261	20	2,391	32
Kentucky	502	1,047	129	895	w
Michigan	1,119	3,325	172	2,223	191
Minnesota	741	1,459	w	1,847	195
Missouri	483	922	w	767	w
North & South Dakota	300	559	w	815	w
Ohio	1,118	3,887	466	2,184	280
Oklahoma	935	1,634	w	1,441	217
Tennessee	784	1,558	75	940	226
Wisconsin	698	1,583	w	1,154	35
PAD District III Total	8,605	22,194	1,537	15,870	14,575
Alabama	671	1,290	59	813	796
Arkansas	187	341	w	216	w
Louisiana	1,412	3,774	477	3,389	5,715
Mississippi	746	2,256	13	1,676	w
New Mexico	171	327	w	165	14
Texas	5,418	14,206	983	9,611	7,468
PAD District IV Total	1,865	2,327	105	2,629	362
Colorado	417	758	w	580	w
Idaho	144	113	w	184	w
Montana	645	554	w	687	84
Utah	227	359	w	443	129
Wyoming	432	543	w	735	w
PAD District V Total	6,875	13,355	343	8,447	7,770
Alaska	232	430	w	1,034	w
Arizona	282	427	w	240	w
California	3,639	8,652	181	4,212	5,600
Hawaii	105	436	w	375	w
Nevada	108	206	w	100	w
Oregon	790	978	w	896	288
Washington	1,719	2,226	w	1,590	778
United States Total	39,999	108,342	5,869	86,536	45,336

w = Withheld to avoid disclosure of individual company data.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, February 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	III	IV
Crude Oil	0	0	0	36	2,282	608	0	39,583	0	0	5,101	2,735	0	3,655	0
Petroleum Products	6,371	0	2,626	5,535	1,682	70,445	19,263	0	2,094	1,283	1,334	0	0	0	0
Pentanes Plus	0	0	0	136	0	0	550	0	0	56	182	0	0	0	0
Liquefied Petroleum Gases	0	0	1,124	3,611	155	2,649	5,203	0	0	520	1,077	0	0	0	0
Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	144	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,213	0	965	1,225	778	34,066	10,373	0	1,267	386	0	0	815	0	0
Finished Leaded Motor Gasoline	983	0	117	312	205	5,324	2,478	0	379	159	308	0	0	0	0
Finished Unleaded Motor Gasoline	3,230	0	848	913	573	28,742	7,895	0	888	227	507	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	7	89	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	80	0	158	1,954	0	254	101	44	0	0	0	0
Kerosene-Type Jet Fuel	342	0	129	69	597	9,029	1,954	0	144	8	105	0	0	0	0
Kerosene	88	0	0	100	0	1,140	100	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,728	0	264	314	143	23,396	1,094	0	429	212	370	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,371	0	2,662	7,817	2,290	70,445	58,946	0	2,094	6,384	3,994	1,334	3,655	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, February 1988
(Thousand Barrels)

(Thousand Barrels)															
Commodity	From I to			From II to			From III to			From V to					
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	141	0	0	201	0	201	0	0	0	1,512	0	16,815
Petroleum Products	123	151	0	1,730	461	0	17,386	1,156	2,418	13,812	3,891	116	0	0	0
Liquefied Petroleum Gases	0	0	0	0	9	0	329	0	0	329	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	195	0	22	173	0	0	0	0	0
Motor Gasoline Blending Components	28	80	0	0	0	0	105	0	105	0	22	0	0	0	0
Finished Motor Gasoline	0	0	0	1,016	0	0	8,706	0	219	8,487	2,034	0	0	0	0
Finished Leaded Motor Gasoline	0	0	0	184	0	0	1,091	0	33	1,058	470	0	0	0	0
Finished Unleaded Motor Gasoline	0	0	0	832	0	0	7,615	0	186	7,429	1,564	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	60	0	43	17	6	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	85	0	0	1,838	38	214	1,586	445	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	45	0	0	103	0	70	33	0	0	0	0	0
Kerosene	69	0	0	359	0	0	3,577	895	785	1,897	706	0	0	0	0
Distillate Fuel Oil	0	0	0	26	316	0	814	223	248	343	72	0	0	0	0
Residual Fuel Oil	18	0	0	44	9	0	0	0	0	0	10	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	0	4	0	0	0	0	278	0	119	159	158	0	0	0	0
Special Naphthas	0	0	0	137	127	0	884	0	521	363	438	116	0	0	0
Lubricants	8	52	0	0	0	0	9	0	9	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	237	0	0	237	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	81	0	63	18	0	0	0	0	0
Miscellaneous Products	0	15	0	18	0	0	0	0	0	0	0	0	0	0	0
Total	123	151	0	1,871	461	0	17,587	1,156	2,619	13,812	3,891	116	1,512	0	16,815

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, February 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	1,890	0	1,890	44,784	3,067	41,717	25,487	39,884	-14,397	608	7,836	-7,228	0	21,982	-21,982
Petroleum Products	92,187	6,645	85,542	30,931	12,034	18,897	7,406	113,195	-105,789	1,682	3,876	-2,194	3,544	0	3,544
Pentanes Plus	0	0	0	606	136	470	318	550	-232	0	238	-238	0	0	0
Liquefied Petroleum Gases	4,102	0	4,102	5,723	4,899	824	4,697	8,181	-3,484	155	1,597	-1,442	0	0	0
Unfinished Oils	195	0	195	0	0	0	0	195	-195	0	0	0	0	0	0
Blending Components															
Motor Gasoline	249	108	141	50	144	-94	80	127	-47	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	44,753	4,213	40,540	17,006	3,984	13,022	1,225	56,446	-55,221	778	1,201	-423	2,082	0	2,082
Finished Leaded Motor Gasoline	6,716	983	5,733	4,090	818	3,272	312	9,742	-9,430	205	467	-262	687	0	687
Finished Unleaded Motor Gasoline	38,037	3,230	34,807	12,916	3,166	9,750	913	46,704	-45,791	573	734	-161	1,395	0	1,395
Finished Aviation Gasoline	67	0	67	95	9	86	0	162	-162	9	0	9	0	0	0
Naphtha-Type Jet Fuel	328	0	328	101	80	21	80	582	-502	0	145	-145	298	0	298
Kerosene-Type Jet Fuel	11,081	342	10,739	2,749	880	1,869	69	13,410	-13,341	597	113	484	249	0	249
Kerosene	1,288	88	1,200	88	145	-57	100	1,243	-1,143	0	0	0	0	0	0
Distillate Fuel Oil	27,596	1,797	25,799	3,809	1,080	2,729	314	29,202	-28,888	143	582	-439	799	0	799
Residual Fuel Oil	840	0	840	72	342	-270	316	886	-570	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	44	18	26	28	53	-25	9	10	-1	0	0	0	0	0	0
Special Naphthas	278	4	274	158	0	158	4	436	-432	0	0	0	0	0	0
Lubricants	1,021	60	961	446	264	182	179	1,438	-1,259	0	0	0	116	0	116
Waxes	9	0	9	0	0	0	0	9	-9	0	0	0	0	0	0
Asphalt and Road Oil	237	0	237	0	0	0	0	237	-237	0	0	0	0	0	0
Miscellaneous Products	99	15	84	0	18	-18	15	81	-66	0	0	0	0	0	0
Total	94,077	6,645	87,432	75,715	15,101	60,614	32,893	153,079	-120,186	2,290	11,712	-9,422	3,544	21,982	-18,438

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 30. Production of Residual Fuel Oil by Sulfur Content by PAD District, February, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD		
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks., Mo.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	United States
Residual Fuel Oil	5,013	90	5,103	1,837	242	142	2,221	4,299	4,778	4,026	288	10,953	28,925
0.00 to 0.30% Sulfur	1,157	16	1,173	45	0	0	45	52	0	723	74	4,853	3,315
0.31 to 1.00% Sulfur	3,231	0	3,231	392	0	86	478	263	738	250	177	6,143	6,135
Greater Than 1.00% Sulfur	625	74	699	1,400	242	56	1,698	114	4,040	3,053	37	7,244	19,475

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District, February 29, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD		
	East Coast	Appalachian #1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks., Mo.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	United States
Residual Fuel Oil -- 0.00 to 0.30% Sulfur	692	43	735	14	0	0	14	27	62	707	3	6,805	2,136
Refinery													
Bulk Terminal			3,517				218					127	3,862
Total			4,252				232					932	5,998
Residual Fuel Oil -- 0.31 to 1.00% Sulfur	1,683	0	1,683	353	0	33	386	44	576	144	96	8,868	3,530
Refinery													
Bulk Terminal			5,988				193					3,259	9,766
Total			7,671				579					4,127	13,296
Residual Fuel Oil -- Greater than 1.00% Sulfur	890	15	905	1,355	254	93	1,702	166	3,481	2,554	66	6,267	13,906
Refinery													
Bulk Terminal			6,732				556					3,249	12,136
Total			7,637				2,258					9,516	26,042

* Effective January 1987 "Appalachian #2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content, February 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V
Residual Fuel Oil	0	0	0	26	316	0	814	223	248	343	72	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	587	223	248	116	0	0
Greater Than 1.00% Sulfur	0	0	0	26	316	0	227	0	0	227	72	0

Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, February 1988
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	2,346	0	0	2,346
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	2,346	0	0	2,346
Other OPEC				
Ecuador	0	0	190	190
Gabon	0	0	0	0
Indonesia	63	125	0	188
Iran	0	0	0	0
Nigeria	0	478	0	478
Venezuela	0	0	5,781	5,781
Subtotal Other OPEC	63	603	5,971	6,637
Other				
Angola	356	0	0	356
Australia	0	0	0	0
Bahamas	227	822	637	1,686
Bolivia	0	0	0	0
Brazil	298	473	0	771
Brunei	0	0	0	0
Canada	31	149	826	1,006
China, People's Republic	0	0	0	0
Congo	0	121	0	121
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	0	0	0
Netherlands	0	129	642	642
Netherlands Antilles	0	272	324	596
Norway	0	0	0	0
Oman	0	0	0	0
Peru	0	0	1,392	1,392
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	184	0	184
Syria	0	0	0	0
Trinidad	0	0	668	668
Tunisia	0	0	0	0
United Kingdom	0	526	0	526
Virgin Islands	998	501	650	2,149
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	335	577	1,647	2,559
Other Eastern Hemisphere	388	782	44	1,214

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, February 1988 (continued)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Subtotal Other	2,633	4,536	6,830	13,999
Total Imports	5,042	5,139	12,801	22,982

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, February 1988

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	4,396	5,139	12,754	22,289
Connecticut	0	507	0	507
Delaware	0	0	68	68
Florida	0	70	888	958
Georgia	0	0	251	251
Maine	0	149	849	998
Maryland	0	0	508	508
Massachusetts	0	929	3,993	4,922
New Hampshire	0	0	309	309
New Jersey	128	547	1,313	1,988
New York	4,268	2,070	1,772	8,110
North Carolina	0	0	693	693
Pennsylvania	0	240	720	960
Rhode Island	0	600	0	600
South Carolina	0	27	376	403
Vermont	0	0	6	6
Virginia	0	0	1,008	1,008
PAD District II	31	0	47	78
Michigan	31	0	0	31
North Dakota	0	0	47	47
PAD District III	227	0	0	227
Texas	227	0	0	227
PAD District V	388	0	0	388
Hawaii	388	0	0	388
All PAD Districts	5,042	5,139	12,801	22,982

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.



THE UNIVERSITY OF CHICAGO





Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

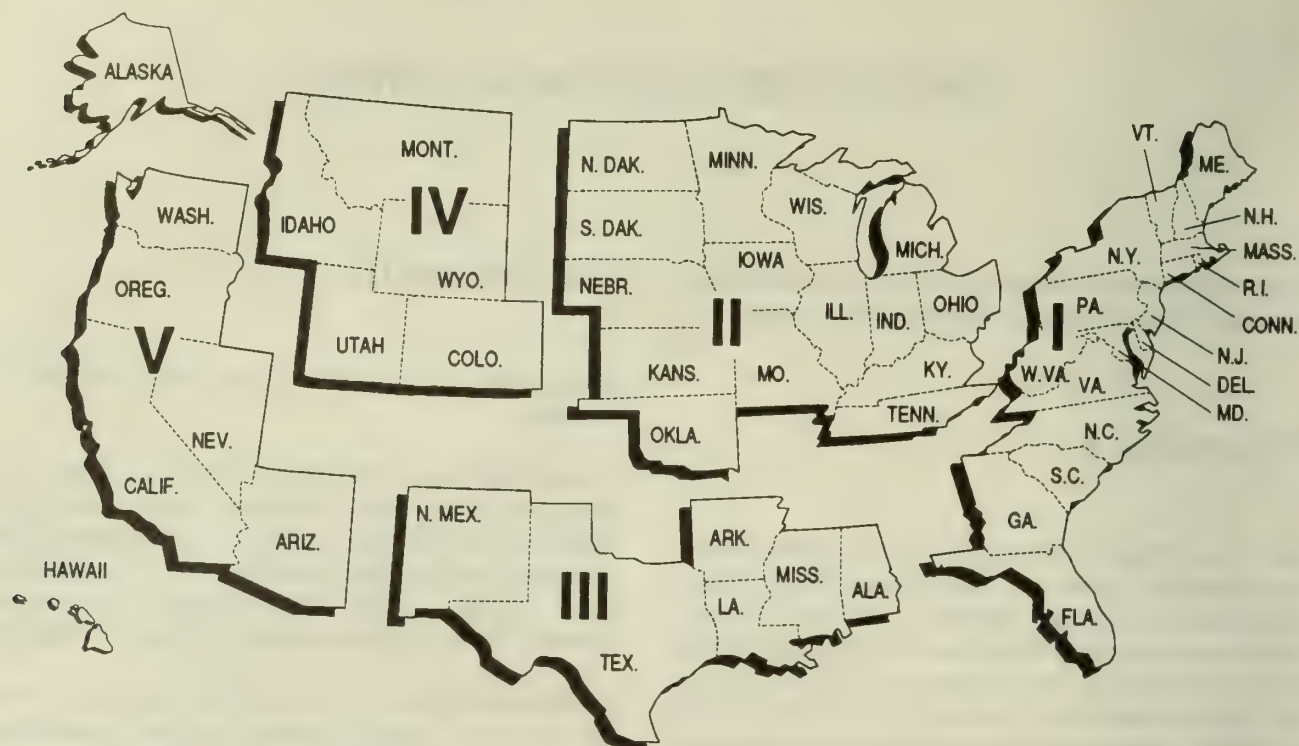
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

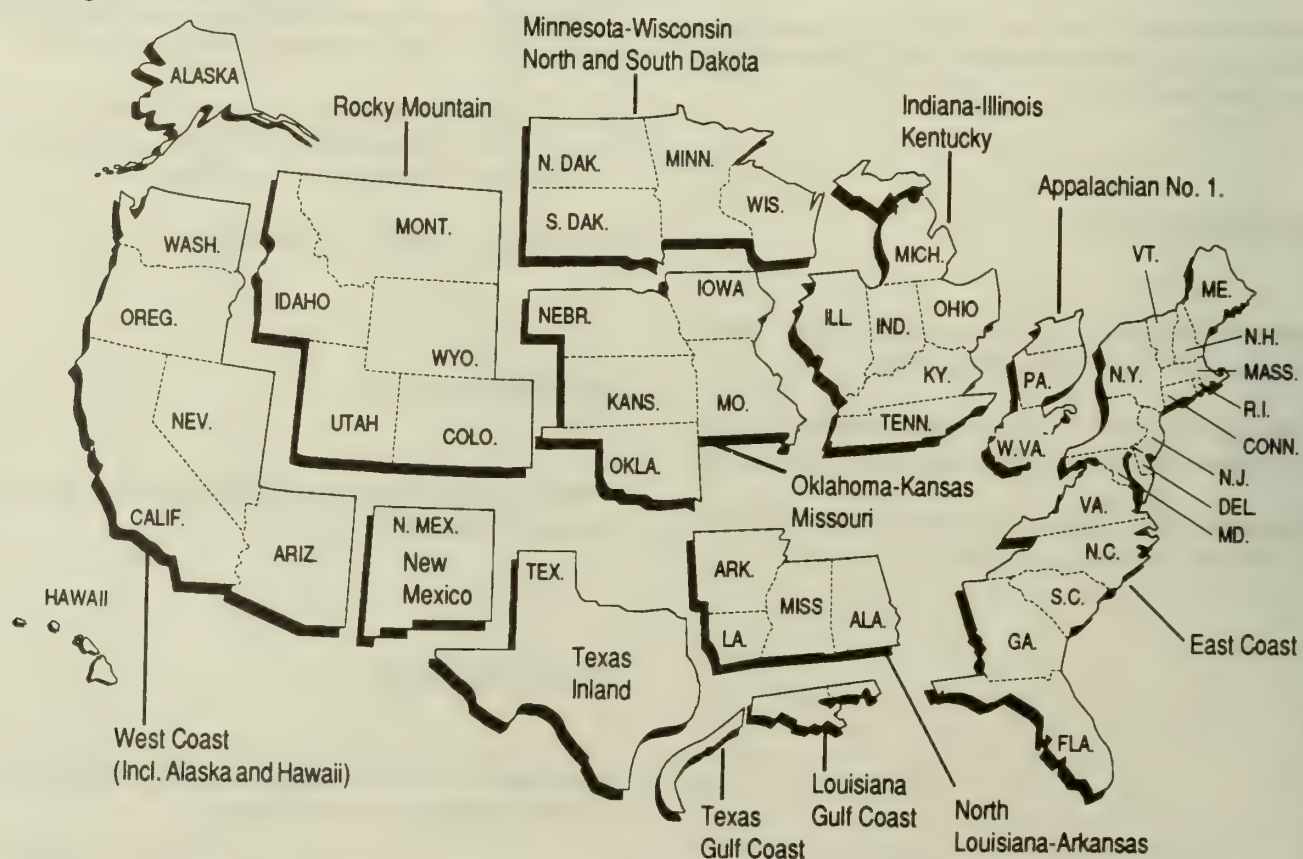
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts



Refining Districts



Appendix B

Explanatory Notes

Note 1: Data Collection Methodology

Background

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form

Number	Name
EIA-800	Weekly Refinery Report
EIA-801	Weekly Bulk Terminal Report
EIA-802	Weekly Product Pipeline Report
EIA-803	Weekly Crude Oil Stocks Report
EIA-804	Weekly Imports Report
EIA-810	Monthly Refinery Report
EIA-811	Monthly Bulk Terminal Report
EIA-812	Monthly Product Pipeline Report
EIA-813	Monthly Crude Oil Report
EIA-814	Monthly Imports Report
EIA-816	Monthly Natural Gas Liquids Report
EIA-817	Monthly Tanker and Barge Movement Report
EIA-820	Annual Refinery Report

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect weekly data on basic refinery operations and on crude oil and major petroleum products stocks and imports. Data from the WPSRS are published in the *Weekly Petroleum Status Report* (WPSR) and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (PSM). A description of the WPSRS survey forms follows in Explanatory Note 1.1.

Forms EIA-810 through 814, 816, and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. These surveys are the primary source of data for the

"Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Explanatory Note 1.2.

Data are also obtained on magnetic tape from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Explanatory Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 using data from an external source. Estimates from the EIA's weekly sample surveys (inaugurated in April 1979) replaced the estimates from the external source for all but the imports series in January 1980, and replaced the imports estimates in June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports all shipments entering the United States. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe which includes all petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. The selected sample size is 153.

EIA-801: Based on the EIA-811 universe which includes every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. The selected sample size is 70.

EIA-802: Based on the EIA-812 universe which includes all product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. The selected sample size is 43.

EIA-803: Based on the EIA-813 universe which includes companies that carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The selected sample size is 79.

EIA-804: Based on the EIA-814 universe which covers each company, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The selected sample size is 83.

Sampling Method

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period begins and ends each Friday at 7 a.m. All canvassed firms must file reports by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month, (M_t), is divided by the amount reported by the sample of companies for the most recent month, (M_s). The result is multiplied by the amount reported by the sample of companies for the current week, (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly refinery inputs and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratios multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for selected products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rate

The response rate for the published estimates is usually between 97 and 100 percent of the sampled respondents.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other

survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 260 respondents report on the EIA-810.

EIA-811: Every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 320 respondents report on the EIA-811.

EIA-812: All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the EIA-812.

EIA-813: All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 180 respondents report on the EIA-813.

EIA-814: All companies, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. Approximately 1,500 respondents report on the EIA-814.

EIA-816: All facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 1,050 respondents report on the EIA-816.

EIA-817: All companies that have custody of crude oil or petroleum products transported by tanker or barge between

PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 50 respondents report on the EIA-817.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Every three years an extensive survey is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, Federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month, with the exception of the EIA-814 which is due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed for companies that do not respond to EIA Forms 810-813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the EIA-814 and 817 are not imputed.

Response Rate

The response rate is generally 99 to 100 percent by the time the data are first published. Nonrespondents are contacted in

writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data tapes are the only source of export statistics and are used to augment the import data collected by the EIA.

Import Statistics (IM-145)

Coverage

Census import statistics used in the PSM reflect both government and nongovernment imports of merchandise from foreign countries and U.S. possessions into the United States (the 50 States and the District of Columbia) without regard to whether or not a commercial transaction is involved. The following types of transactions are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Census export statistics used in the PSM reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

1. Merchandise shipped in-transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
2. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census. Exporters are required to file export documents with Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey descriptions and other details, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form EIA-814, *Monthly Imports Report*. In addition, imports of NGL's are obtained from the Census Bureau Tabulation IM-145. The Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. Additional data taken from the IM-145 are relatively small quantities of naphtha-type and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the Form EIA-814 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks. A negative result (-) would represent a buildup of stocks. For a description of survey forms used to make stock withdrawal or addition calculations, see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports, and stock withdrawals. Crude oil disposition is the sum of exports, refinery input, losses, stock additions, and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supply from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. All except four of the producing States report data monthly. These States are New York, Ohio, Pennsylvania, and Virginia. Estimates of monthly production for these States are made using methodologies explained in the next paragraph. After the end of each calendar year, the monthly numbers are updated using the annual reports of the State conservation agencies and the Minerals Management Service.

Table 11 of this publication provides information on crude oil production for the most recent month for which State values are available. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly State crude oil production data become available. In order to present more timely crude oil production values, the Energy Information Administration prepares a forecast estimate on the first day of the reference month and revised estimates approximately 75 days later which are based on historical production patterns and are summed to obtain national and Petroleum Administration for Defense District (PADD) level crude oil production values. The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. The forecast estimates are published in the *Weekly Petroleum Status Report* and are also used to calculate the preliminary estimates in the "Summary Statistics" section of the *Petroleum Supply Monthly*.

These forecast estimates are then replaced by the revised estimates in the next issue of the *Petroleum Supply Monthly*.

Table B1 is intended to provide further insight into EIA's estimates of monthly U.S. crude oil production. It shows (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon data collected on Form EIA-182, *Domestic Crude Oil First Purchase Report*, is

used in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the reference month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available 74 days after the reference month and includes imputation as

needed. A final revision is published concurrent with publication of EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is used in the *Petroleum Supply Annual*.

Table B1. U.S. Crude Oil¹ Production Estimates and Reported State² Data by Month (Thousand Barrels per Day)

Date of Data Availability	Month of Production																	
	11-86	12-86	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88
Reported State Data ³																		
12-14-86	0																	
1-14-87	1883	0																
2-14-87	1907	1808	0															
3-14-87	6454	1881	1971	0														
4-14-87	7908	7842	4704	1942	0													
5-14-87	7908	7842	7606	4844	2033	0												
6-14-87	8381	7842	7594	7291	4813	2057	0											
7-14-87	8381	8317	7594	7291	7579	4618	2068	0										
8-14-87	8381	8317	8376	8068	7667	7615	4654	2012	0									
9-14-87	8381	8317	8380	8068	8152	8110	7218	4665	1999	0								
10-14-87	8381	8317	8409	8290	8356	8288	8210	7672	4264	1997	0							
11-14-87	8381	8317	8413	8291	8356	8412	8211	8139	7276	2971	1945	0						
12-14-87	8381	8317	8409	8292	8369	8411	8255	8140	7752	7724	5008	2088	0					
1-14-88	8381	8317	8409	8292	8369	8412	8255	8179	7756	7731	7252	4866	2152	0				
2-14-88	8381	8317	8410	8294	8370	8412	8256	8191	8095	8034	8039	7703	5296	2127	0			
3-14-88	8381	8317	8410	8294	8370	8412	8256	8191	8095	8071	8039	8190	8205	3208	2086	0		
4-14-88	8381	8317	8362	8268	8342	8377	8218	8157	8133	8093	8090	8249	8286	8204	5111	2161	0	0
Producing States Without Reported Monthly Production ⁴																		
4-14-88	0	0	4	4	4	4	4	4	4	4	4	4	4	4	16	28	33	33

	Month of Production																	
Type of Estimate	11-86	12-86	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88
	Production Estimate																	
Original ⁵	8737	8711	8354	8384	8336	8361	8296	8303	8287	8204	8162	8281	8283	8348	8395	8353	8306	8269
Interim ⁶	8321	8348	8477	8318	8349	8426	8305	8263	8242	8190	8190	8293	8330	8340	8245	8376		
Form EIA-182																		
Initial	8007	7989	8034	8079	8214	8287	8149	8168	8078	8022	8110	8151	8162	8144	8017	8239		
Revised	8149	8142	8232	8210	8266	8306	8161	8178	8082	8032	8084	8153	8173	8180	8048			
Final ⁷	8412	8352																

¹ Includes lease condensate.

² Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

³ Includes EIA prorated monthly production in 1986 (annual average of 50 thousand barrels per day) for four States (New York, Ohio, Pennsylvania, and Virginia) for which only annual State data are available.

⁴ New York, Ohio, Pennsylvania, and Virginia are counted as having monthly reported data in 1986 after their annual reports were received.

⁵ Original estimates in 1986 were made on a quarterly cycle. For example, January, February and March 1986 estimates were made at the end of December 1985. Original estimates after December 1986 were made on the first of each month.

⁶ All 1986 interim estimates were made on January 7, 1987. January and February 1987 interim estimates were made on March 5 and April 6, 1987, respectively. Interim estimates after February 1987 were made 44 days after the end of the production month.

⁷ Published in the *Petroleum Supply Annual* 1986 DOE/EIA 0340(86)/2.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries reported for all refineries on Form EIA-810, *Monthly Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, and the Virgin Islands, which are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Product supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production net having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in-transit is also included. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers. For survey descriptions and other details, see Explanatory Note 1.2.

Note 6: Average Stock Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, residual oil, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels are described below.

The graphs displaying inventory levels of crude oil and petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the report inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases, were derived using monthly data from 1979-1985.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the *average range* is twice the standard deviation.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other details, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the "Summary Statistics" section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition. statistics on the referenced line appear in Table 1 of the "Detailed Statistics," except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Gross Imports Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted for Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- Crude Losses and Product Supplied appear as labeled in Table 4.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.
- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, ethylene, propane, propylene, butane, butylene, and isobutane. The statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases. The statistics on the referenced line are aggregated from Table 4 of the "Detailed Statistics," except where noted.

- Total production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.
- Line (5): *SPR Imports* are reported on survey Form EIA-814.
- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude oil losses minus crude oil product supplied in Table 2.
- Line (14): Natural Gas Plant Liquids (NGPL) *Field Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.
- Line (15): NGPL *Net Imports* equals the sum of the imports of pentanes plus minus the exports of pentanes plus in Table 2.
- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the stock withdrawal (+) or addition (-) of pentanes plus in Table 2.
- Line (17): *Total NGPL Supply* equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids *Stock Withdrawal (+) or Addition (-)* equals the aggregate stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components in Table 2.
- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.
- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).
- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of natural gas

liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus field production of other liquids; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.
- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.
- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).
- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of natural gas liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus total field production of other liquids; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.
- Line (29): *Refined Products Stock Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.
- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.
- Lines (31) through (34): Equal the respective products supplied in Table 2.
- Line (35): *Other Products Supplied* equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, naphtha <400 Deg. F. for petrochemical feedstock use, other oils >400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products supplied in Table 2.
- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.
- The sum of lines (38) and (39): *Stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by

the *Strategic Petroleum Reserve* equals ending stocks of crude oil in Table 2.

- Line (43): *Stocks of Finished Refined Products* equals the sum of liquefied petroleum gases and finished petroleum products stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1,462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the "Summary Statistics," is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the "Summary Statistics." This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108.
- Other Petroleum Products: 1983 - 248.

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1981 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA

and API estimates of "recast" motor gasoline product supplied.

EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ¹
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

¹FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied (Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,83
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: Natural Gas Liquids Reporting Changes

Beginning in January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record-keeping practices used by the industry. The following table shows the product category under the new and old basis. Four PSRS surveys were modified beginning in January 1984. They were:

- EIA-810 *Monthly Refinery Report*
- EIA-811 *Monthly Bulk Terminal Report*
- EIA-812 *Monthly Product Pipeline Report*
- EIA-816 *Monthly Natural Gas Liquids Report*

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Adjustments are applied to NGL imports data to make them consistent with the revised reporting system (See Explanatory Note 14).

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
1979-1983 Product Basis					
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Note 14: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquids (NGL) supply data, moving from a nine-product slate basis to a five-component slate basis that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first six months of 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by

Table B5. Algorithm for Allocating NGL Imports/Exports (Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline An Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	60	40	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	80	20	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15: Addition of Crude Oil Pipeline Movements Data

Beginning in January 1985, inter-PAD District pipeline movements of crude oil were included in the PSM. Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the PSM that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6-10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products." 1985 crude oil imports and unfinished oil imports in Tables 6 through 10 are now reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts." A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes net movements by pipeline as well as by tanker and barge.

Note 16: 1986 Changes in Petroleum Industry Reporting

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks ¹ (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGL's & LRG's	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

¹ Stocks as of December 31, 1985.

Also, beginning in January 1986, a major integrated petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities have been combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which will show a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes have been made to tables in the PSM either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes are:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
 - Alaskan crude oil receipts are now shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
 - The "petrochemical feedstock use" and "other use" are no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
 - Imports of unfinished oils are now separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" are shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely and consistent energy information.

Changes in Data Collection and Reporting Systems

- Fresh feed input to catalytic cracking units, hydrocracking units and cokers were added to the Form EIA-810, *Monthly Refinery Report*.

Changes in Publications

- The "Appalachian No. 2" Refining District has been combined with the "Indiana, Illinois, Kentucky," Refining District. This affects PSM Tables 12-15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units and cokers are included in Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during

1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all Foreign Trade Zone facilities located within the 50 United States are considered domestic entities and are included in statistics in the PSM. The principal differences in the PSM data series are about a 1 percent increase in crude oil imports and a 3 percent decrease in product imports.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1987
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs												
Crude Oil	12,570	-1	12,296	-6	12,085	-5	12,513	-1	12,662	-9	13,200	2
LPG's	419	0	341	1	282	0	276	-2	270	-1	255	0
Production												
LPG's	1,764	-13	1,784	-22	1,768	-7	1,781	-7	1,736	-5	1,741	-9
Finished Motor Gasoline	6,688	26	6,367	-2	6,555	13	6,851	-2	6,991	0	7,089	0
Naphtha-Type Jet Fuel	168	6	185	9	181	6	199	3	220	-4	204	0
Kerosene-Type Jet Fuel	1,196	-4	1,138	-3	1,099	-4	1,052	0	1,032	3	1,048	0
Kerosene	129	0	79	-1	61	0	46	0	37	1	38	0
Distillate Fuel Oil	2,774	-15	2,574	-18	2,384	38	2,553	0	2,565	-2	2,689	0
Residual Fuel Oil	919	2	833	-7	867	-4	831	1	814	-2	863	1
Imports												
Crude Oil	4,385	18	3,896	-29	3,742	37	4,115	17	4,243	97	4,788	18
Finished Motor Gasoline	320	73	303	6	342	22	362	12	348	6	385	0
Naphtha-Type Jet Fuel	12	-6	10	-7	12	-6	3	0	2	0	2	0
Kerosene-Type Jet Fuel	21	16	50	14	43	34	38	24	24	45	29	35
Distillate Fuel Oil	197	25	229	25	251	46	185	7	201	2	248	18
Residual Fuel Oil	667	36	612	58	552	7	541	-64	498	7	477	4
Other Products	395	32	548	71	544	36	437	86	460	2	640	6
Stocks (Thousand Barrels)												
Crude Oil	333,741	-712	331,951	-93	333,353	-902	331,024	-2,067	325,351	-648	329,826	-2,228
Unfinished Oils	94,665	-1,159	102,695	-1,013	107,575	-913	105,477	-999	102,950	-952	102,804	-412
LPG's	87,379	-210	81,604	-166	82,208	-471	86,382	-1,006	95,257	-1,093	100,708	-1,298
Total Motor Gasoline	249,893	1,218	250,681	-599	249,174	-1,124	242,558	-808	235,187	-279	230,570	-149
Naphtha-Type Jet Fuel	7,427	204	6,749	392	6,722	309	6,865	318	7,930	148	7,328	-66
Kerosene-Type Jet Fuel	42,734	-618	41,194	-40	41,406	-362	40,105	-128	39,499	-222	38,677	0
Distillate Fuel Oil	141,366	-24	123,525	205	109,982	-650	100,403	-65	101,804	-518	104,267	124
Residual Fuel Oil	45,025	-94	38,124	16	39,627	-324	35,923	-33	40,331	40	41,334	22
Product Supplied												
LPG's	1,988	-17	1,815	-26	1,556	-6	1,486	7	1,296	-8	1,407	-7
Finished Motor Gasoline	6,469	69	6,726	70	6,921	43	7,317	-3	7,472	-11	7,531	8
Naphtha-Type Jet Fuel	166	-7	219	-5	193	2	196	3	188	1	226	7
Kerosene-Type Jet Fuel	1,152	50	1,223	-10	1,128	41	1,129	17	1,071	47	1,100	27
Distillate Fuel Oil	3,259	51	3,347	-2	3,005	112	3,004	-12	2,670	14	2,793	-3
Residual Fuel Oil	1,462	41	1,470	46	1,220	14	1,257	-73	1,026	3	1,206	5
Major Products Supplied	14,496	176	14,800	73	14,023	206	14,389	-61	13,723	46	14,263	37

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Table C1. Impact of Resubmissions on Major Series, 1987 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Avg Difference
Inputs													
Crude Oil	13,432	-2	13,381	-1	13,174	-6	12,725	8	12,982	-1	13,210	2	-2
LPG's	244	0	251	1	266	0	294	0	357	-1	395	0	0
Production													
LPG's	1,767	-4	1,722	-6	1,741	-8	1,741	-7	1,766	-4	1,759	-7	-8
Finished Motor Gasoline	7,041	2	6,933	0	6,925	-4	6,662	6	6,914	-7	7,017	-2	3
Naphtha-Type Jet Fuel	221	0	207	1	203	1	219	0	225	-8	206	0	1
Kerosene-Type Jet Fuel	1,125	1	1,193	-2	1,193	-3	1,188	2	1,163	8	1,233	0	0
Kerosene	54	0	66	0	90	0	118	0	117	0	107	0	0
Distillate Fuel Oil	2,700	0	2,711	-6	2,750	-3	2,778	2	3,043	-8	3,241	1	-1
Residual Fuel Oil	902	-1	877	5	905	0	885	2	925	3	1,001	1	0
Imports													
Crude Oil	5,259	36	5,470	39	5,085	25	5,119	22	4,939	74	4,571	69	35
Finished Motor Gasoline	448	4	361	35	383	38	348	8	474	10	318	1	18
Naphtha-Type Jet Fuel	3	0	3	0	2	0	4	0	4	0	2	0	-2
Kerosene-Type Jet Fuel	31	39	20	32	43	38	18	61	27	24	19	46	34
Distillate Fuel Oil	378	2	215	7	217	5	222	15	180	7	354	23	15
Residual Fuel Oil	680	41	511	1	513	14	380	34	546	22	664	-14	12
Other Products	459	19	557	5	520	7	575	27	502	25	563	3	27
Stocks (Thousand Barrels)													
Crude Oil	326,227	-2,477	334,261	-1,793	338,619	-1,455	353,230	2,664	362,864	773	349,289	-294	-769
Unfinished Oils	100,013	8	103,580	-2	102,895	89	104,603	281	102,270	-333	93,185	0	-450
LPG's	105,518	-1,612	112,161	-241	116,187	-1,840	110,896	1,609	110,853	-2,227	97,152	-58	-718
Total Motor Gasoline	226,550	-197	226,343	116	229,618	30	218,026	-4	225,087	103	226,290	-107	-150
Naphtha-Type Jet Fuel	7,231	22	6,950	31	6,454	52	7,097	0	7,108	-65	7,956	0	112
Kerosene-Type Jet Fuel	39,480	-1	40,795	-33	43,785	-101	42,719	21	43,820	117	41,971	2	-114
Distillate Fuel Oil	114,688	-86	125,169	-434	126,934	-172	121,134	-160	129,035	-1,031	134,482	3	-234
Residual Fuel Oil	45,119	-425	45,499	191	44,233	184	45,361	258	49,706	269	47,337	73	15
Product Supplied													
LPG's	1,534	0	1,424	-52	1,576	46	1,832	-121	1,609	126	1,963	-76	-11
Finished Motor Gasoline	7,575	6	7,313	26	7,170	36	7,289	16	7,151	0	7,247	5	22
Naphtha-Type Jet Fuel	227	-2	217	1	221	0	202	2	227	-6	177	-2	0
Kerosene-Type Jet Fuel	1,125	40	1,168	31	1,101	38	1,205	59	1,108	30	1,238	50	35
Distillate Fuel Oil	2,704	9	2,540	13	2,844	-6	3,134	17	2,904	28	3,327	-9	18
Residual Fuel Oil	1,285	54	1,190	-13	1,283	14	1,035	34	1,181	24	1,441	-7	12
Major Products Supplied	14,450	107	13,852	6	14,195	128	14,697	7	14,180	202	15,393	-39	74

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

THE [illegible] OF [illegible]

[illegible text]

[illegible text]

Glossary





Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)_n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr. } 60^{\circ} \text{ F} / 60^{\circ} \text{ F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cut-back asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C₆H₆), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C₄H₈), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 degrees F to 750 degrees F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. See *Motor Gasoline (Finished)*.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 degrees F to 1000 degrees F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See *Butane*.

Isohexane. A saturated branch-chain hydrocarbon, (C₆H₁₄). It is a colorless liquid that boils at a temperature of 156.2 degrees F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C₄), an alkylation process feedstock, and normal pentane and hexane into

isopentane, (C₅), and isohexane, (C₆), high-octane gasoline components.

Isopentane. See *Natural Gasoline and Isopentane*.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10-percent recovery point, a final boiling point of 572 degrees F, and a minimum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 degrees F at the 10-percent recovery point and a final maximum boiling point of 572 degrees F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 degrees F to 650 degrees F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants"

includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. A product of hydrotreating, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a range in distillation temperatures from 122 to 158 degrees F at the 10-percent recovery point and from 365 to 374 degrees F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.

Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Naphtha-type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 degrees F at the 20-percent recovery point and 470 degrees F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemi-

cals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F" and "Other oils over 400 degrees F."

Naphtha-Less Than 400 Degrees F. A naphtha with a boiling range of less than 400 degrees F that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. Oils with a boiling range of over 400 degrees F that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 degrees F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank and is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per barrel (42 U.S. gallons).

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C₆H₅CH₃), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas, kerosene, light and heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 degrees F (D1321)-60 maximum. Viscosity at 210 degrees F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscos-

ity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

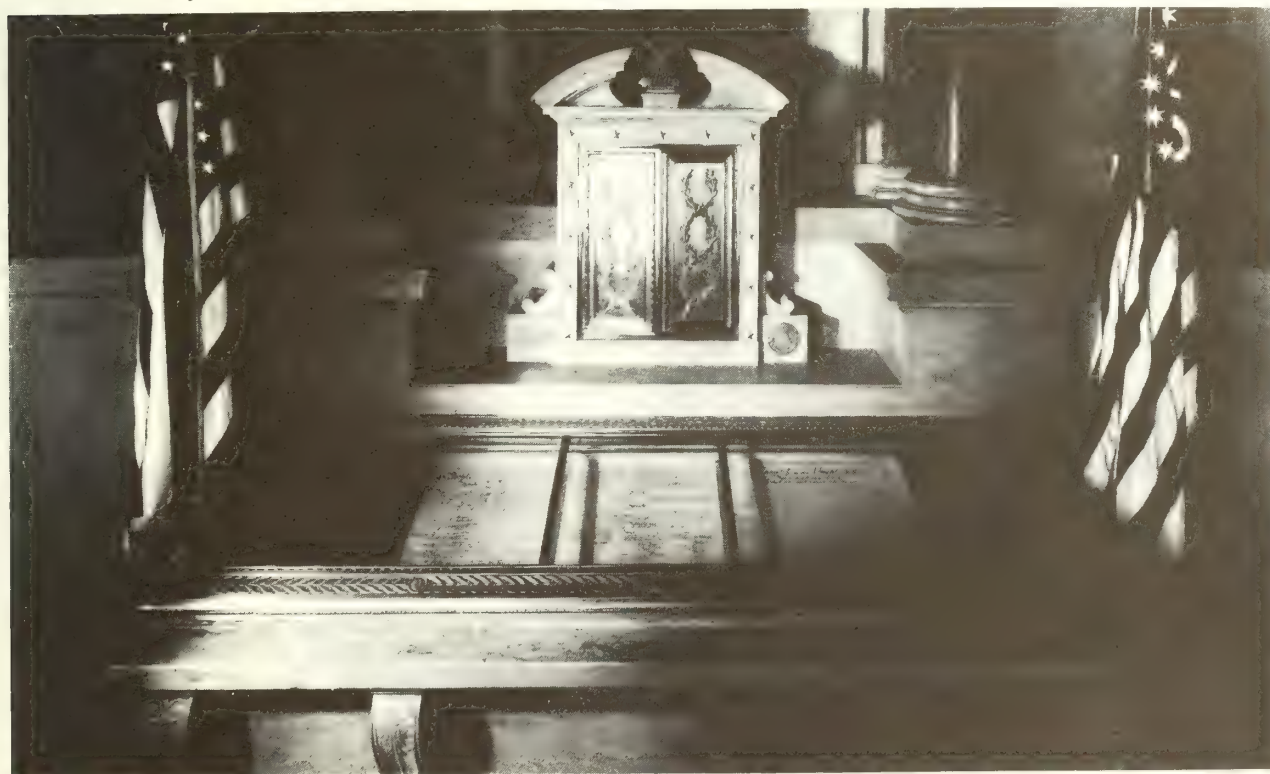
Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Working Storage Capacity. The volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C₆H₄Y(CH₃)₂), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

THE PRESIDENT DOESN'T TAKE AN OATH TO DEFEND THE AMERICAN FLAG OR THE STATUE OF LIBERTY.

The President takes an oath to defend something even more important than a majestic symbol of our country.



The President takes an oath to defend the Constitution of the United States. A document that has been described as the greatest leap forward for freedom in human history. A document that is the foundation of our country. And the means by which we achieve the rule of law and protect our freedom.

As we commemorate the Bicentennial of the Constitution, there is no better way for you as an American to reaffirm the principles for which our country stands than to learn more about the Constitution.

The words we live by.

THE CONSTITUTION

The words we live by

To learn more about the Constitution write: Constitution, Washington, D.C. 20599. The Commission on the Bicentennial of The U.S. Constitution.



THE STYLISH COUNTRY AMERICAN HOME TO BE WITH THE DOES IT ALL IN THE



THE COUNTRY
HOME

Information Link Between the Federal Government

- Books, journals, maps and more
- Selections tailored to local needs
- Dynamic and constantly updated collections
- More than 1,380 locations across the U.S.A.
- Free access

and You.



The Federal Depository Library Program

For more information, contact your local library or write to the Federal Depository Library Program,
Office of the Public Printer, Washington, DC 20401.

This program is supported by The Advertising Council and is a public service of this publication.

Energy Information Administration
U.S. Department of Energy
Forrestal Building, EI-231
Washington, DC 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

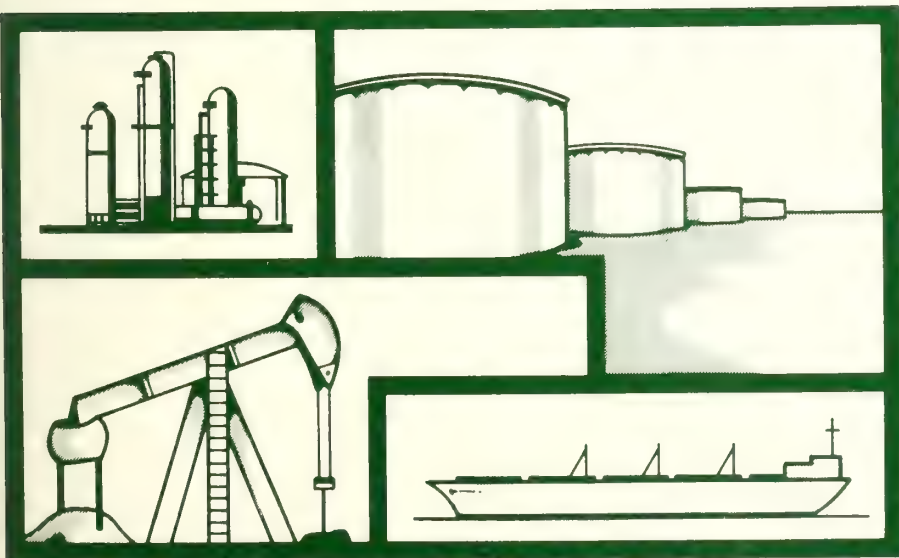
FIRST CLASS MAIL

Energy Information Administration

Petroleum Supply Monthly

March 1988

U.S. GOVERNMENT PRINTING OFFICE: 1987-0-250-000



This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below.

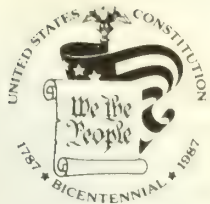
National Energy Information Center, EI-231
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, DC 20585
(202)586-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202)783-3238

We thank the following for the use of their photographs and illustrations in this report.

Cities Service Co., page ix (courtesy of the American Petroleum Institute).
Amoco Oil Co., page xii (courtesy of the American Petroleum Institute).
Champlin Petroleum Co., page xv (courtesy of the American Petroleum Institute).
Standard Oil Co., page 1 (courtesy of the American Petroleum Institute).
PPG Industries, Inc., page 69 (courtesy of the American Petroleum Institute).
Standard Oil Co., page 73 (courtesy of the American Petroleum Institute).
Texaco Inc., page 91 (courtesy of the American Petroleum Institute).
Atlantic Richfield Co., page 95 (courtesy of the American Petroleum Institute).

Released for printing: May 27, 1988



DOE/EIA-0109(88/03)
Distribution Category UC-98

Petroleum Supply Monthly

March 1988

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

The Library of the
AUG 1 1988
University of Illinois
at Champaign

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), *Weekly Coal Production* (WCP), and *Electric Power Monthly* (EPM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202)586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a holiday) after 5:00 p.m. Monthly petroleum supply data for the current month are also provided and are updated by 5:00 p.m. on the 24th of each month. Monthly statistics from the *Electric Power Monthly* are available on or about the first working day of each month. Question or comments on petroleum data should be directed to T.C. Swann at (202)586-1155. Questions or comments on coal data should be directed to Hans Becker at (202)586-6874. Questions on electricity data should be directed to Dean Fennell at (202)586-5311.

Access Instructions:

- 1) DIAL (202)586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```
***                                     ***
***                                     ***
***      WELCOME TO THE                ***
***      ENERGY INFORMATION ADMINISTRATION ***
***      ELECTRONIC PUBLICATION SYSTEM ***
***                                     ***
```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT
PSMR - PETROLEUM SUPPLY MONTHLY
STKS - PSM STATE STOCKS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT
EPMS - U.S. ELECTRIC POWER STATISTICS

PLEASE ENTER THE DESIRED REPORT ID... PSMR

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

\$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED MONTHLY STATISTICS FROM PETROLEUM SUPPLY MONTHLY (PSM) SYSTEM. THIS SYSTEM WILL DISPLAY THE MOST RECENT PSM DATA FOR TABLES 4, 11, 18, AND 24. PLEASE TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:

- 7 Data Bits
- 1 Stop Bit
- Even Parity

EIA Petroleum Data Available In Machine-Readable Files

Petroleum supply statistics are available on five magnetic tapes. One tape contains final 1983 through 1986 petroleum supply statistics by month, taken from the *Petroleum Supply Annual*; the second contains preliminary 1987 and 1988 statistics to date by month, from the *Petroleum Supply Monthly*. Three additional tapes contain current and historical statistics on imports of crude oil and petroleum products into the United States and Puerto Rico. The current import tape contains preliminary 1987 and 1988 statistics to date by month. The two historical import tapes contain final statistics by month. One tape contains statistics for the years 1977 through 1985; the second contains 1986 statistics. The current tapes are updated each month. All tapes are fully documented.

Tapes are sold for \$200 each and should be referenced by National Technical Information Service (NTIS) number:

<i>Petroleum Supply Annual</i> -- 1983-1987	PB88-206719
<i>Petroleum Supply Monthly</i> -- Preliminary (1988)	PB88-207501
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985	PB87-147781
Oil Imports into the United States and Puerto Rico, Annual -- 1986-1987	PB88-207485
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1988)	PB88-207493

To order, contact:

National Technical Information Service (NTIS)
Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Stephen Patterson	(202) 586-5994
Supply and Disposition	Stephen Patterson	(202) 586-5994
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Nancy Masterson	(202) 586-8393
Imports	Claudette Graham	(202) 586-9649
Exports	T. C. Swann	(202) 586-1155
Stocks	Beverly Harris	(202) 586-5130
Transportation	Chris Gray	(202) 586-8995

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Contents

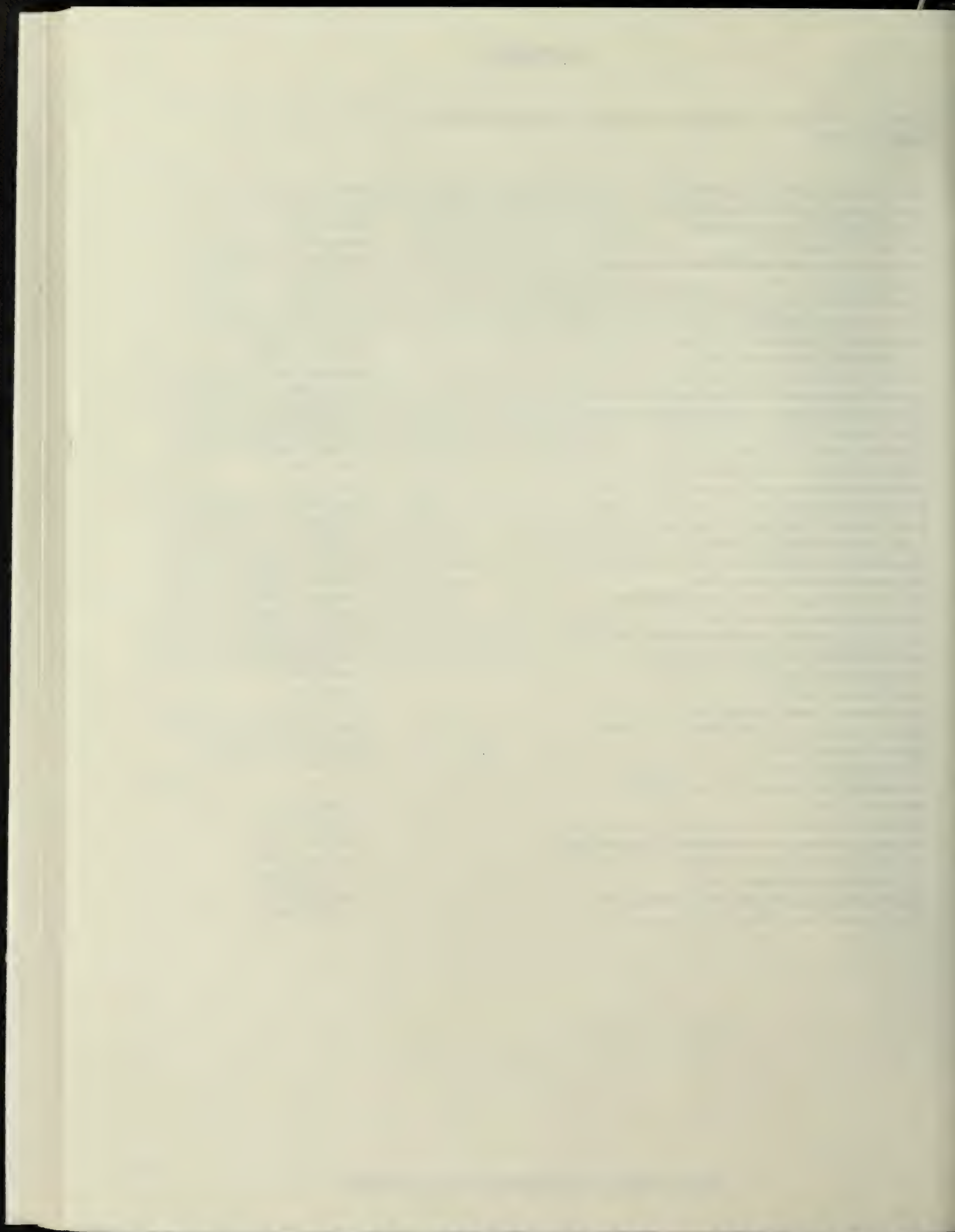
	Page
Highlights	xi
Petroleum Focus	
Petroleum Supply Summary	xvii
Tables	
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview	2
S2. Crude Oil Supply and Disposition	6
S3. Crude Oil and Petroleum Product Imports	8
S4. Finished Motor Gasoline Supply and Disposition	11
S5. Distillate Fuel Oil Supply and Disposition	13
S6. Residual Fuel Oil Supply and Disposition	15
S7. Liquefied Petroleum Gases Supply and Disposition	17
S8. Other Petroleum Products Supply and Disposition	18
Sources of Summary Statistics	19
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I	28
7. PAD District II	29
8. PAD District III	30
9. PAD District IV	31
10. PAD District V	32
Production of Crude Oil	
11. Production of Crude Oil (Including Lease Condensate) by PAD District and State	33
Natural Gas Processing	
12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District	34
Refinery Operations	
13. Refinery Input of Crude Oil and Petroleum Products by PAD District	35
14. Refinery Production of Petroleum Products by PAD District	36
15. Percent Refinery Yield of Petroleum Products by PAD District	37
Imports of Crude Oil and Petroleum Products	
16. Imports of Crude Oil and Petroleum Products by PAD District	38
17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District	39
18. Imports of Crude Oil and Petroleum Products by Source and PAD District	40
19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District	45
Exports of Crude Oil and Petroleum Products	
20. Exports of Crude Oil and Petroleum Products by PAD District	51
21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District	52
22. Exports of Crude Oil and Petroleum Products by Destination	53
23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination	55

	Page
Stocks	
24. Stocks of Crude Oil and Petroleum Products by PAD District	57
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	62
Movements of Crude Oil and Petroleum Products	
26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	63
27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts	64
28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts	64
29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	65
Residual Fuel Oil by Sulfur Content	
30. Production of Residual Fuel Oil by Sulfur Content by PAD District	66
31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District	66
32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content ...	66
33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin	67
34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry	68
Illustrations	
S1. Petroleum Overview	4
S2. Petroleum Products Supplied	4
S3. Crude Oil Supply and Disposition	5
S4. Crude Oil Ending Stocks	5
S5. Finished Motor Gasoline Supply and Disposition	10
S6. Motor Gasoline Ending Stocks	10
S7. Distillate Fuel Oil Supply and Disposition	12
S8. Distillate Fuel Oil Ending Stocks	12
S9. Residual Fuel Oil Supply and Disposition	14
S10. Residual Fuel Oil Ending Stocks	14
S11. Liquefied Petroleum Gases Supply and Disposition	16
S12. Liquefied Petroleum Gases Ending Stocks	16
Appendices	
A. District Descriptions and Maps	71
B. Explanatory Notes	75
C. Impact of Resubmissions on Major Series, 1988	93
Glossary	
Definitions of Petroleum Products and Other Terms	97

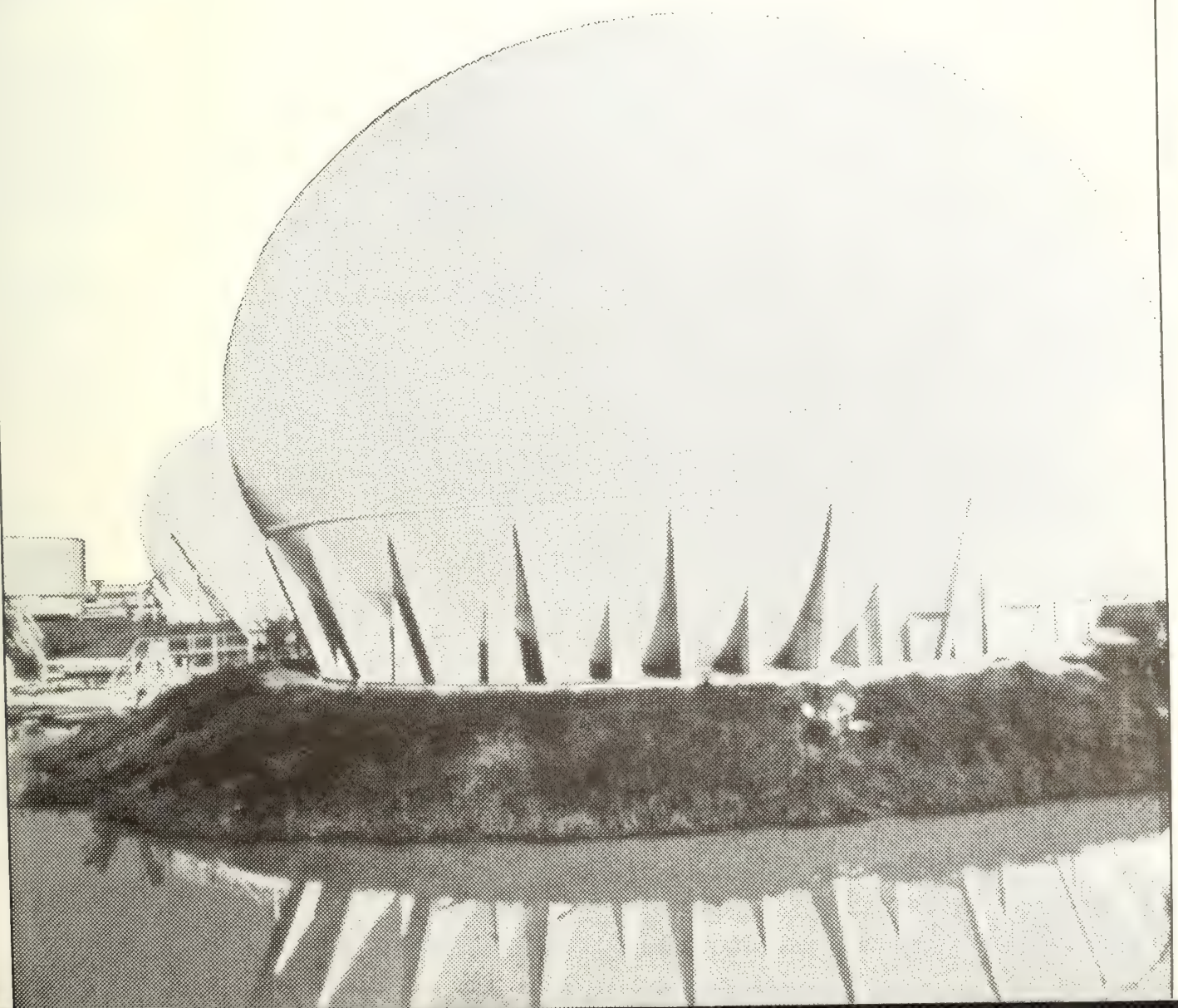
Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1985
Motor Gasoline Outlook for Summer 1985	February 1985
Refinery Capacity Trends and Outlook	March 1985
Mid-Year Petroleum Review	May 1985
Timeliness and Accuracy of Petroleum Supply Data	June 1985
Distillate Fuel Oil Trends	July 1985
World Oil Price and Inventory Cycles	August 1985
Petroleum Storage Technology	August 1985
Comparison of Independent Statistics on Petroleum Supply	September 1985
U.S. Petroleum Developments: 1985	November 1985
Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988
Motor Gasoline Trends Through 1987	February 1988



Highlights



UNIVERSITY OF MICHIGAN LIBRARY



Highlights

Total U.S. demand for petroleum products during March 1988 averaged 17.5 million barrels per day, about the same as in February. This is, however, 1.6 million barrels per day above the level of a year earlier. Seasonal drops in residual fuel oil and propane demand were partially offset by a rise in motor gasoline consumption. A scheduled change in tax laws affecting certain purchasers of diesel fuel kept deliveries of distillates at the same high level as in February and brought distillate stocks at the primary level to their lowest level since 1967.

Other March highlights include the following:

- Total product stocks fell 23.2 million barrels, primarily because of a big drawdown in distillate stocks.
- Refinery utilization increased in March to 83.5 percent.

Product Supplied

Despite the closing of the winter heating season, deliveries of distillates averaged 3.5 million barrels per day, virtually unchanged from last month's level (Table H1). Efforts to avoid payment of a 15.1 cents per gallon tax on diesel fuel (expected to be effective April 1) by farmers, oil drilling companies, and other off-road users led to the continued high demand for distillates this month. Though exempt from this

tax, under the new arrangement these users of diesel fuel must pay the tax at the time of purchase and later file with the Internal Revenue Service for a refund. The comparatively large 0.7 million barrel per day drawdown in distillates, and in particular diesel fuel, was the outcome of the rush to beat the anticipated April 1 deadline.

Residual fuel oil product supplied decreased in March after 4 consecutive months of seasonal increases, reflecting a normal shift in demand for this product. From an average of 1.6 million barrels per day in February, residual fuel oil deliveries fell 0.2 million barrels per day to 1.4 million barrels per day in March. Production and net imports both showed decreases from February's level. On a year-to-year basis, the recently improved competitive position of residual fuel oil in relation to natural gas in some utility and industrial markets has helped push residual fuel oil deliveries above the level of March 1987. In fact, average residual fuel oil demand for the first quarter of 1988 was almost 7 percent above the average demand for this product during the comparable period in 1986, a time when residual fuel oil prices fell dramatically.

Propane demand continued to follow seasonal patterns and fell once again this month. Deliveries of propane decreased 0.2 million barrels per day in March to 0.9 million barrels per day. Continued strong demand for petrochemical feedstocks has contributed to the yearly growth observed in propane demand. For the first quarter in 1988, propane demand was 0.1 million barrels per day, or almost 7 percent greater than that for the first quarter of last year.

Table H1. Production, Imports, Product Supplied, and Stock Change¹: February 1988 and March 1988
(Million Barrels per Day)

Category	February 1988				March 1988				Difference (March minus February)			
	Production	Imports	Product Supplied	Stock Change ¹	Production	Imports	Product Supplied	Stock Change ¹	Production	Imports	Product Supplied	Stock Change ¹
Motor Gasoline	6.7	0.4	7.0	-0.1	6.7	0.3	7.3	0.3	(s)	(s)	0.3	0.3
Distillate Fuel Oil	2.7	0.3	3.5	0.6	2.7	0.2	3.5	0.7	(s)	-0.1	(s)	0.1
Residual Fuel Oil	1.0	0.8	1.6	(s)	0.9	0.6	1.4	(s)	-0.1	-0.2	-0.2	(s)
Propane	0.9	0.1	1.2	0.2	0.9	0.1	0.9	(s)	(s)	(s)	-0.2	-0.2
Asphalt/Road Oil	0.3	(s)	0.2	-0.1	0.3	(s)	0.3	-0.1	0.1	(s)	0.1	(s)
Total Products	16.1	2.3	17.6	0.9	16.3	1.9	17.5	0.7	0.2	-0.4	-0.1	-0.1

¹ A positive number indicates a stock decrease and a negative number indicates a stock increase.

^(s) Less than 50,000 barrels per day.

Note: Components may not add due to independent rounding.

Motor gasoline deliveries averaged 7.3 million barrels per day in March, about 0.3 million barrels per day greater than in February. Most of the increased demand this month was met by drawing on stocks, which dropped nearly 0.3 million barrels per day.

Motor gasoline deliveries have also increased over the level of a year ago. During the first 3 months of 1988, motor gasoline product supplied averaged 0.3 million barrels per day, or over 4 percent above the level for the comparable period in 1987. The increase in demand for unleaded motor gasoline is also apparent. From a 74-percent share of total motor gasoline demand in the first quarter of 1987, unleaded gasoline accounted for over 80 percent of the 1988 first quarter total.

Asphalt and road oil demand was also up again this month in response to seasonal increases in road construction and maintenance. Asphalt and road oil deliveries averaged nearly 0.3 million barrels per day in March, up 0.1 million barrels per day from February's level.

Product Stocks Fall

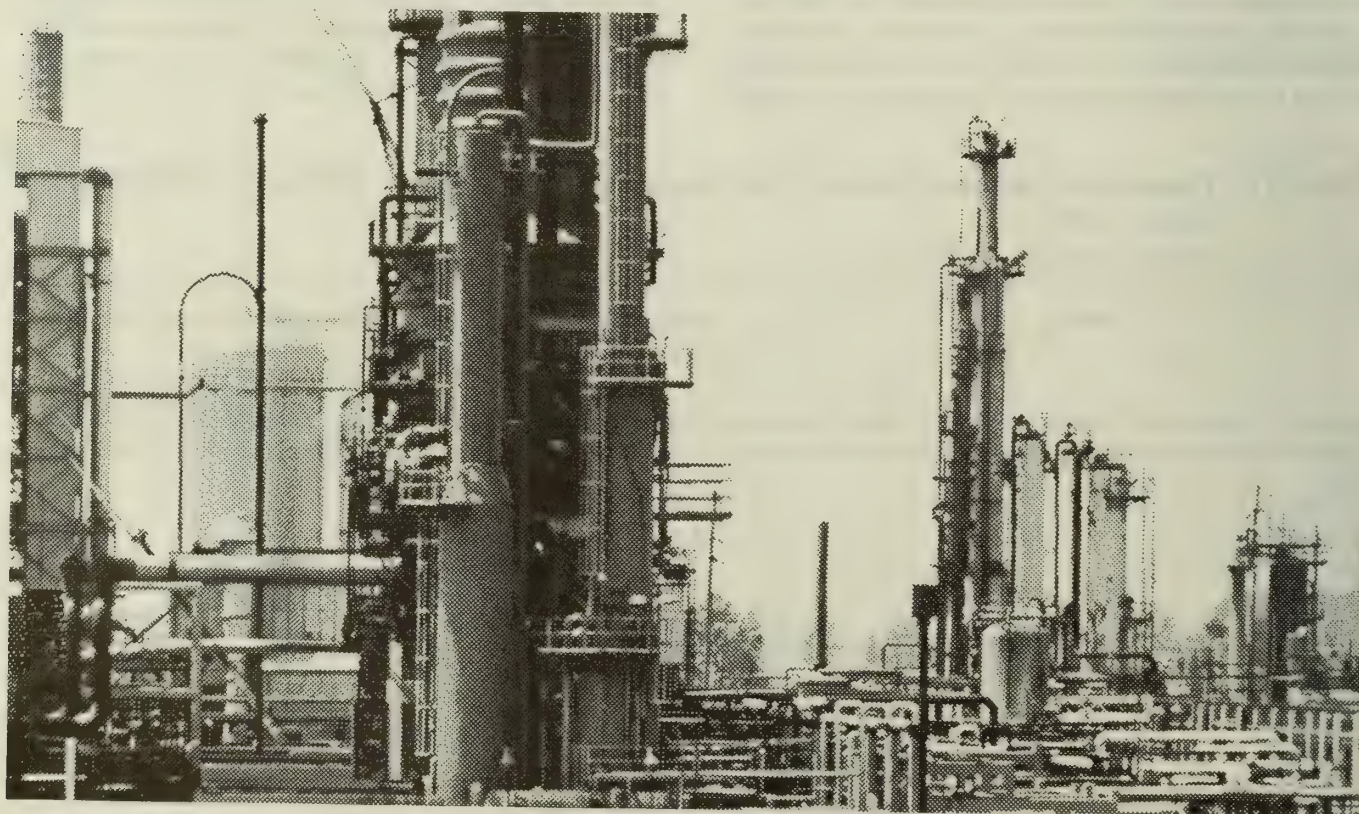
Total petroleum product stocks fell 23.2 million barrels in March to wind up the month at 659.9 million barrels. By far the largest drawdown was experienced in distillate inventories, which accounted for 88 percent of the total drop in

product stocks. Distillate stocks fell 20.3 million barrels in March, to 89.3 million barrels by month's end, in large part because of a surge in purchases of diesel fuel, discussed earlier. Since the beginning of the year, distillate stocks have fallen 45.2 million barrels, a drop of 34 percent.

Stocks of motor gasoline, which were withdrawn to meet increased demand for this product, ended March at 193.9 million barrels, 8.4 million barrels below the level at the end of February. Sixty-seven percent of this drop occurred in unleaded gasoline stocks, which fell by 5.7 million barrels, or 0.2 million barrels per day.

Refinery Utilization Up

Following 2 consecutive months of decline, refinery utilization turned upward in March to 83.5 percent. A jump of 0.3 million barrels per day in gross refinery inputs was primarily responsible for the increase in utilization. Daily gross refinery inputs averaged over 13.2 million barrels per day and operable refinery capacity averaged about 15.9 million barrels per day in March. Downstream refinery activity also picked up. From 6.6 million barrels per day in February, fresh feed inputs to catalytic cracking, catalytic hydrocracking, and coking units increased 0.1 million barrels per day in March to 6.7 million barrels per day.



Refinery utilization recovered from 81.1 percent in February to 83.5 percent in March.

Effect of Diesel Fuel Tax on Distillate Fuel Oil Supply

An anticipated change in Federal diesel fuel tax collection procedures has contributed to strong distillate demand and low distillate fuel oil inventories at the end of March 1988. Demand in March of 3.5 million barrels per day was at the highest level for the end of the heating season since 1979. Stock withdrawals during the month to fill the demand for distillate resulted in a decrease in inventories from 110 million barrels at the end of February to 89 million barrels at the end of March. March ending stocks had not been this low since 1967.

The unusually low primary inventories at the end of March 1988 appear to be partly due to large purchases of diesel fuel before April 1, when tax collection procedures were expected to change for most off-highway consumers of diesel fuel. This procedural change was enacted under the 1987 Omnibus

Budget Reconciliation Act passed last December. The purpose of the change is to improve tax compliance for on-highway diesel fuel that is subject to the motor fuel tax of 15.1 cents per gallon. By requiring consumers of off-highway diesel fuel to pay the tax up-front, then apply for a refund for the portion used for off-highway purposes, an additional \$6.34 million in revenue for each million barrels will be collected. Motor fuel taxes are used to finance Federal highway projects. Collection of the tax at the wholesale level instead of the retail level also improves compliance by reducing the number of collection points from about 60,000 to about 8,000.¹

Under special rules, diesel fuel for use in trains or by State and local governments can still be purchased tax-free.² Consumers engaged in farming, shipping, construction, drilling,

¹*Tax Notes*, March 21, 1988, p. 1290.

²Bureau of National Affairs, Inc., *Taxation, Budget and Accounting Text* (No. 51), March 16, 1988, p. L-5.



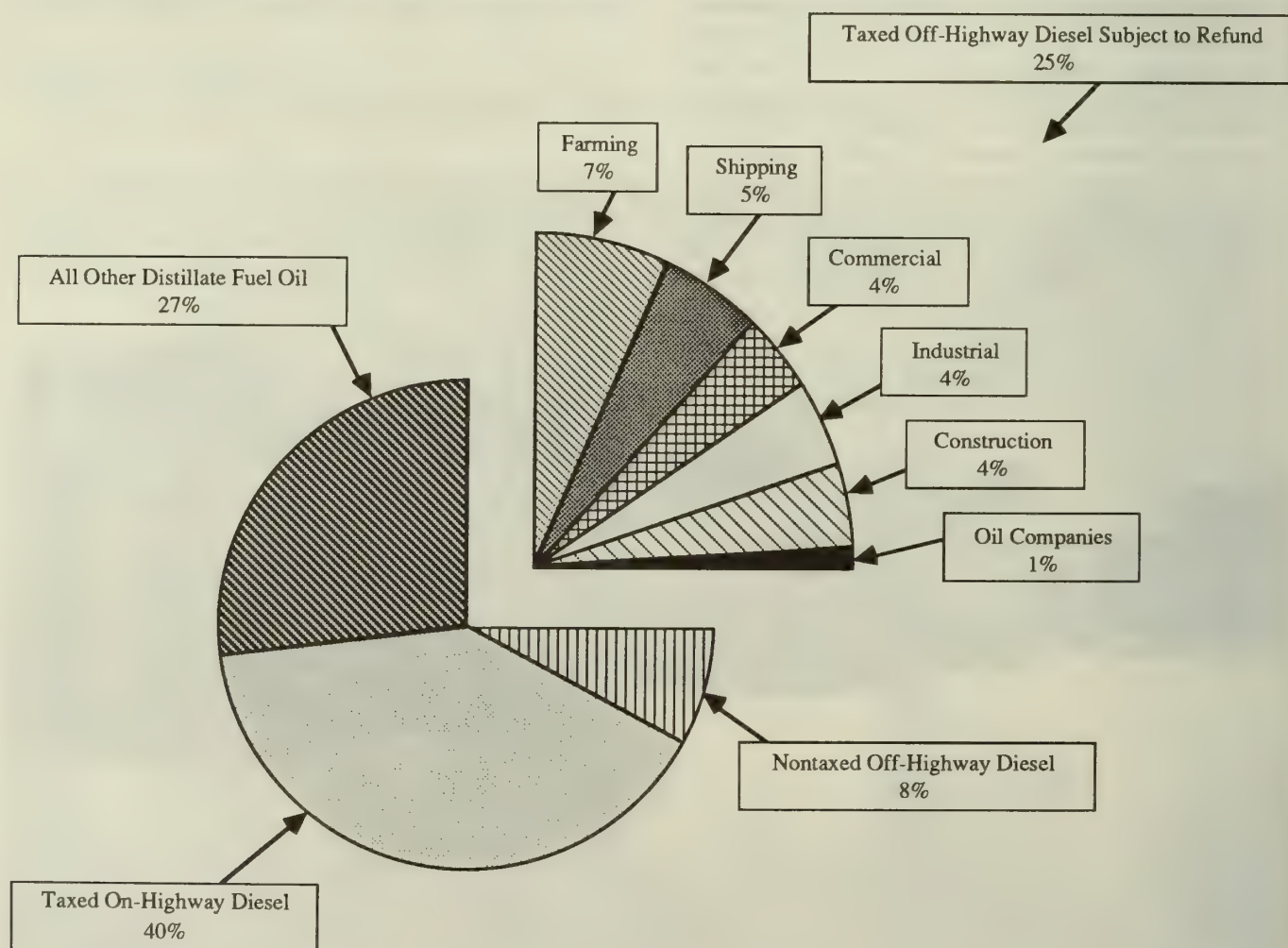
A scheduled change in Federal tax law affecting some users of diesel fuel contributed to the unusually large 20.3 million barrel drawdown in distillates during March. Bulk terminal loading facilities, like the one pictured here, were busy much of the month supplying diesel fuel to off-road users before the anticipated April 1 deadline.

and industrial and commercial operations are subject to the change in procedure, however. These purchasers consume approximately 25 percent of all distillate fuel oil used in the United States (Figure H1). The requirement to pay the motor fuel tax, then request a refund from the Internal Revenue Service, significantly increases their immediate costs for diesel fuel.³ The burden placed on these consumers, who are not even subject to the tax, has brought several proposals for revisions to the law, but the earliest that a change could be effected would be October of this year.

Preliminary data for April (Table S5) indicates that product supplied for distillate fuel oil declined considerably, from 3.5 million barrels per day in March to 2.9 million barrels per day in April, and that end-of-month primary stocks increased from 89 million barrels to 95 million barrels over the same period. An increase in distillate fuel oil inventories in April is against the normal trend, but it supports the argument that the high level of demand in March was partly a shift of spring demand in anticipation of the expected April 1 change in tax collection procedures.

³ International Energy Agency, *Energy Prices and Taxes*, Second Quarter 1987, pp. 271 and 289.

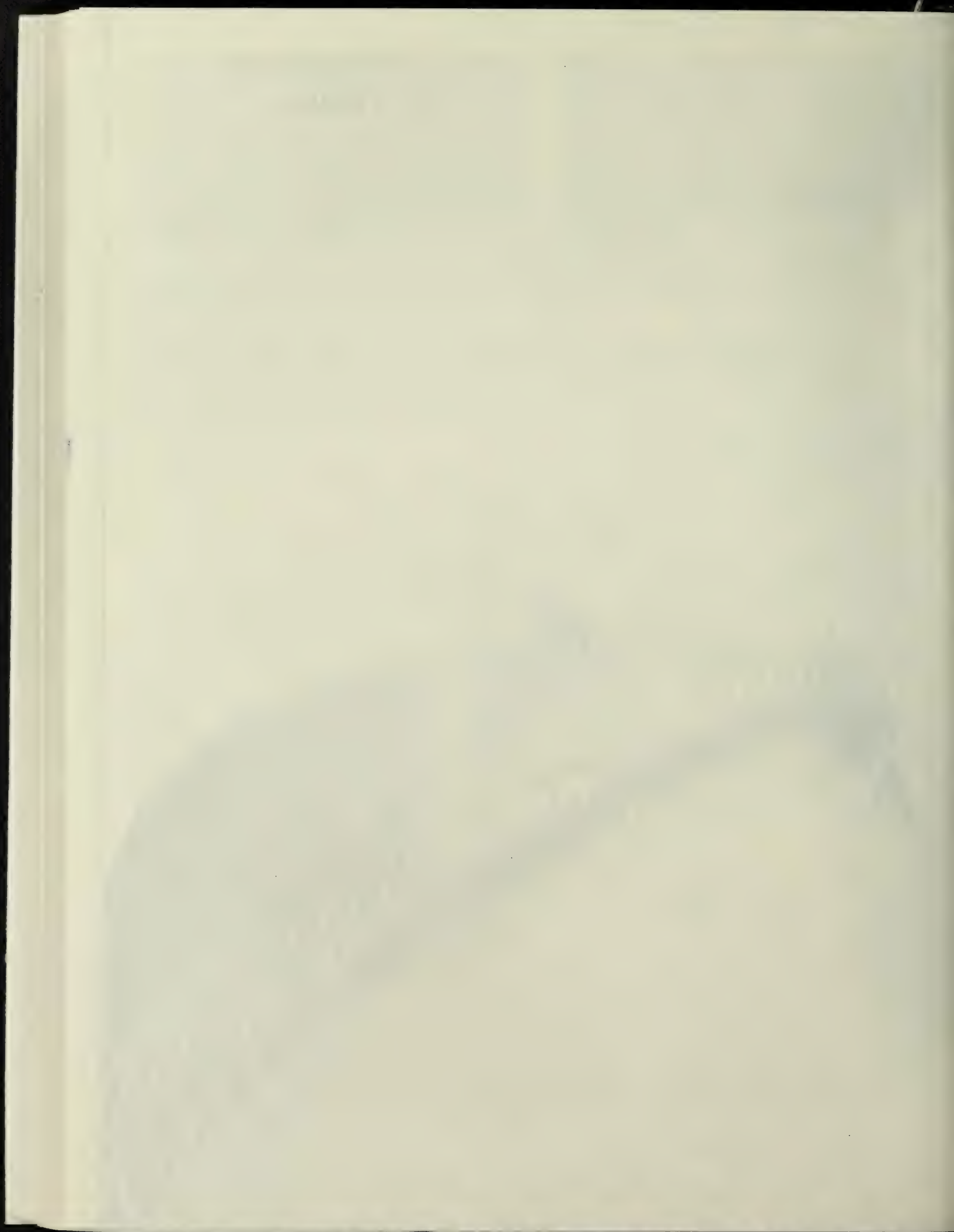
Figure H1. Effect of Revised Tax Collection Procedures on Distillate Fuel Oil



Note: Commercial includes government use.

Source: *Petroleum Marketing Monthly*, July 1987, DOE/EIA-0380 (87/07), Deliveries of Fuel Oil and Kerosene.

1000



Petroleum Supply Summary

(Million Barrels per Day)

	April			Cumulative January Through April		
	1988	1987	% Change	1988	1987	% Change
Products Supplied						
Motor Gasoline	7.0	7.3	-3.6	7.0	6.9	2.1
Distillate Fuel Oil	2.9	3.0	-5.0	3.4	3.1	6.6
Residual Fuel Oil	1.4	1.3	8.5	1.5	1.4	10.6
Other Products	5.3	4.9	9.5	5.4	5.0	7.3
Total	16.6	16.5	.7	17.2	16.4	5.2
Crude Inputs to Refineries	13.2	12.5	5.1	13.0	12.4	5.0
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	9.9	10.1	-1.7	10.0	10.1	-1.1
Imports						
Crude Oil ²	5.0	4.1	22.4	4.7	4.0	19.4
SPR	.1	.1	12.7	.1	.1	-30.6
Products	1.8	1.7	4.7	2.1	1.8	13.3
Total	6.8	5.8	17.1	6.9	5.9	16.8
Export						
Crude Oil	.2	.2	-27.8	.2	.2	-4.5
Products	.7	.6	13.4	.7	.6	4.5
Total	.9	.9	1.6	.9	.8	2.4
Stock Withdrawal						
Crude Oil ²	-.3	.1	-	-.1	(s)	-
Products	(s)	.6	-	.5	.5	-
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	547	522	4.8	-	-	-
Other	358	331	8.0	-	-	-
Total	904	853	6.0	-	-	-
Products						
Motor Gasoline ³	229	243	-5.5	-	-	-
Distillate Fuel Oil	95	100	-5.4	-	-	-
Residual Fuel Oil	42	36	16.3	-	-	-
Other	299	312	-4.3	-	-	-
Total	565	691	-3.8	-	-	-
Total Crude Oil and Products	1,569	1,544	1.6	-	-	-

¹ Includes alcohol and other hydrocarbon liquids.

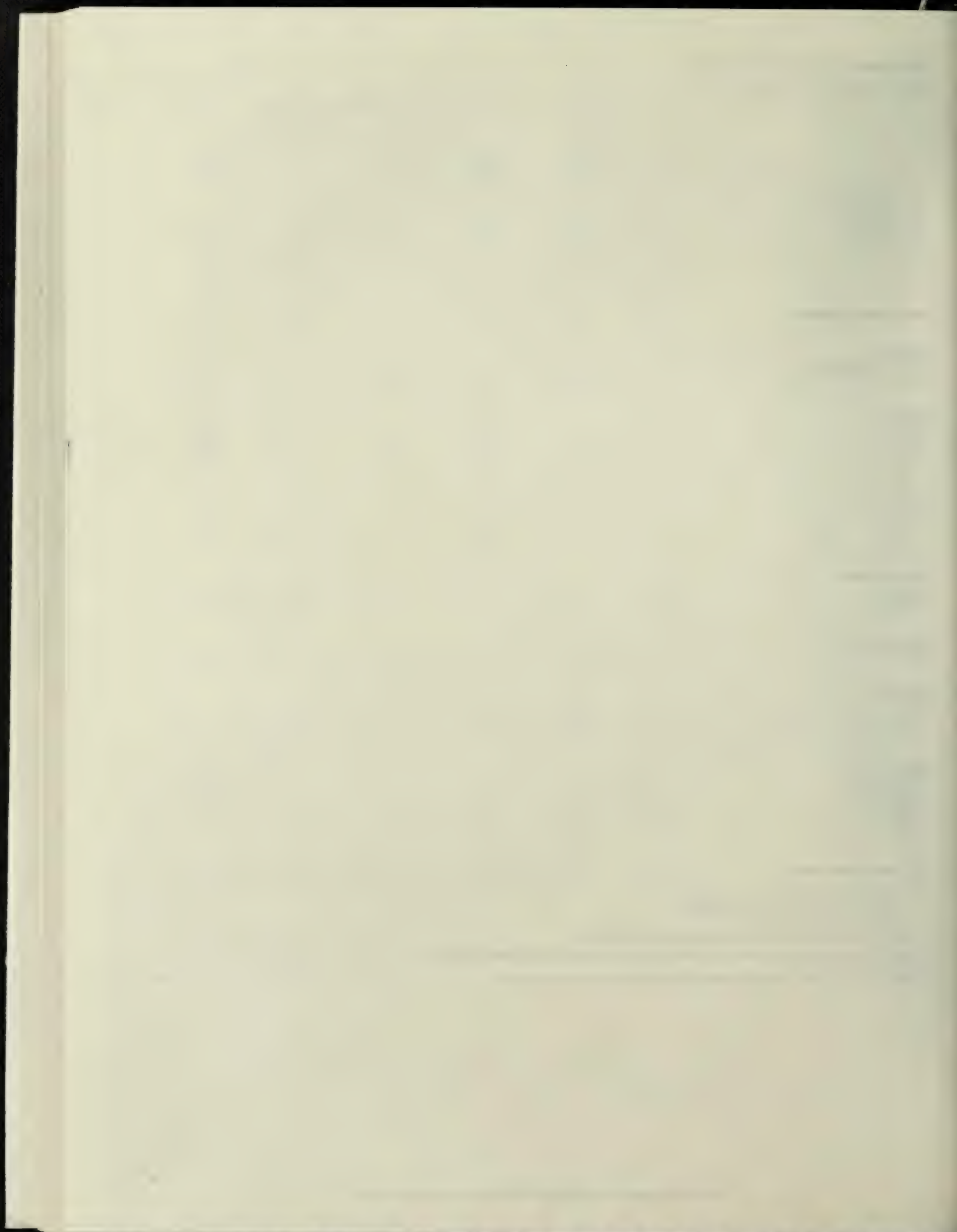
² Excludes Strategic Petroleum Reserve (SPR).

³ Including blending components.

(s) = Less than 0.05 million barrels per day/or less than 0.05 percent.

Note: Percent changes are based on unrounded values. April 1988 data are estimates based on weekly data. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, March 1988.



Summary Statistics

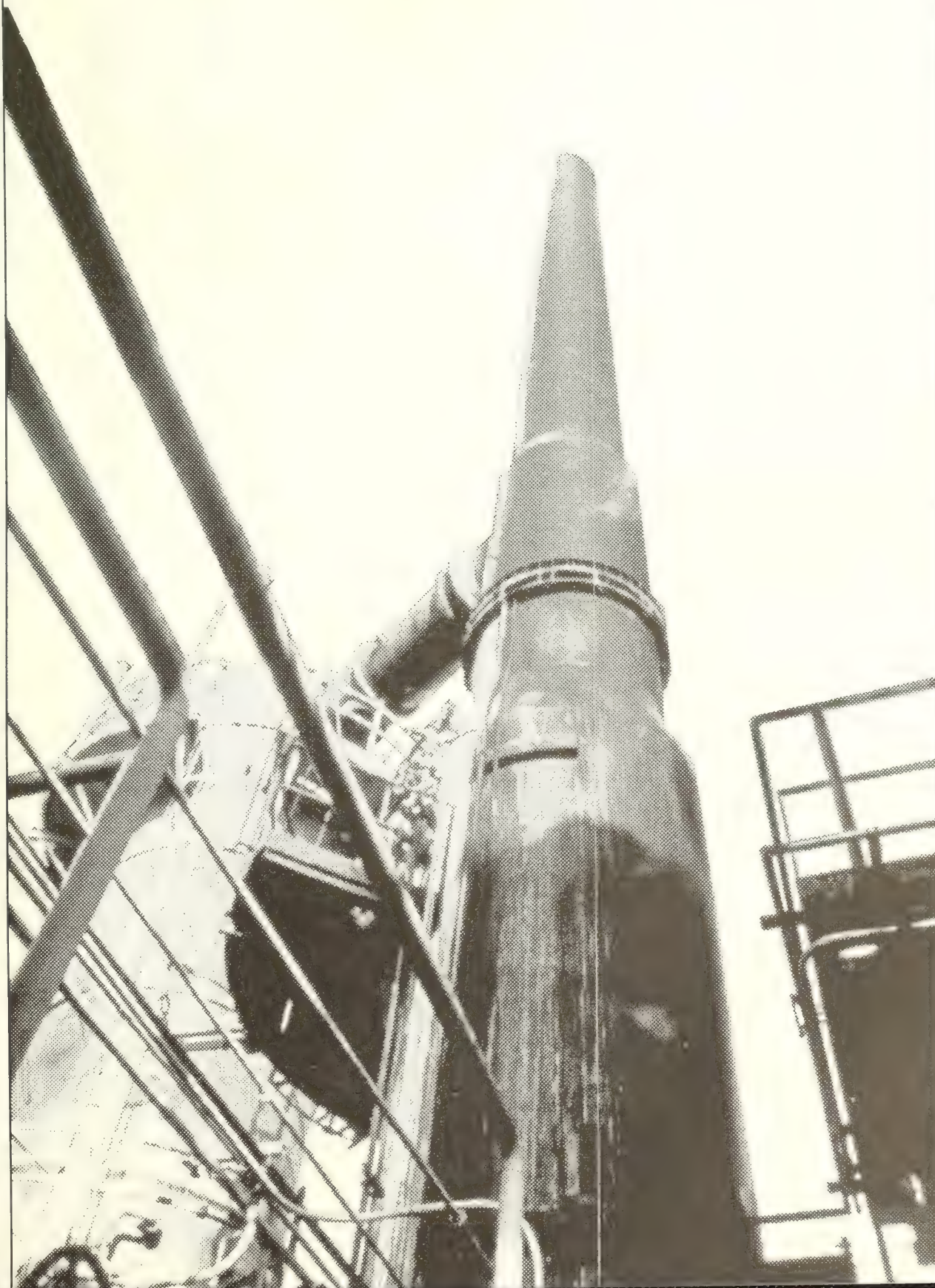


Table S1. Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Liquids	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
								Thousand Barrels per Day
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	^B 1,074
1975	Average	10,045	8,375	1,633	^B -17	^B -15	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	^B 1,392
1981	Average	10,230	8,572	1,609	^B -290	^B 130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	^B 1,430
1983	Average	10,299	8,688	1,559	^B -214	^B 234	15,231	1,454
1984	Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985	Average	10,636	8,971	1,609	-50	153	15,726	1,519
1986	January	10,911	9,137	1,711	-383	-151	16,088	1,535
	February	10,916	9,173	1,696	-37	804	16,186	1,514
	March	10,664	9,013	1,604	-345	1,160	16,276	1,489
	April	10,435	8,864	1,523	41	262	15,945	1,479
	May	10,440	8,838	1,543	260	-1,109	15,993	1,506
	June	10,187	8,623	1,504	3	-1,238	16,049	1,543
	July	10,225	8,660	1,507	-541	-422	16,307	1,573
	August	9,875	8,374	1,445	242	-551	16,618	1,582
	September	9,852	8,328	1,468	-217	-973	15,909	1,618
	October	9,954	8,419	1,477	-233	476	16,602	1,610
	November	10,061	8,412	1,569	95	-147	16,221	1,612
	December	9,985	8,352	1,571	186	443	17,131	1,593
	Average	10,289	8,680	1,551	-78	-124	16,281	--
1987	January	^E 10,145	^E 8,477	1,592	-189	377	16,382	1,588
	February	^E 10,010	^E 8,318	1,625	(s)	814	16,721	1,565
	March	^E 10,025	^E 8,349	1,607	-151	266	15,965	1,561
	April	^E 10,077	^E 8,426	1,600	11	559	16,501	1,544
	May	^E 9,953	^E 8,305	1,593	82	-122	15,978	1,546
	June	^E 9,902	^E 8,263	1,590	-218	3	16,815	1,552
	July	^E 9,892	^E 8,242	1,588	25	-385	16,996	1,563
	August	^E 9,829	^E 8,190	1,577	-323	-678	16,325	1,594
	September	^E 9,845	^E 8,190	1,587	-209	-276	16,533	1,609
	October	^E 9,972	^E 8,293	1,609	-528	640	16,909	1,605
	November	^E 10,046	^E 8,330	1,641	-418	-651	16,064	1,637
	December	^E 10,034	^E 8,340	1,629	370	580	17,493	1,608
	Average	^E 9,977	^E 8,311	1,603	-129	90	16,556	--
1988	January	^E 9,874	^E 8,245	1,569	56	285	17,224	1,597
	February	^E 10,016	^E 8,376	1,594	-130	895	17,584	1,575
	March*	^E 10,044	^{RE} 8,347	^R 1,628	^R -212	^R 748	^R 17,530	^R 1,559
	April**	^E 9,904	^{PE} 8,269	^E 1,582	-329	43	16,609	1,569
	4-Mo. Average	^E 9,959	^{PE} 8,308	^E 1,593	-153	490	17,236	--
1987	4-Mo. Average	^E 10,066	^E 8,394	1,605	-85	496	16,383	--
1986	4-Mo. Average	10,729	9,045	1,633	-186	514	16,124	--

¹ Includes lease condensate.² A negative number indicates an increase in stocks and a positive number indicates a decrease.³ Stocks are totals as of end of period.⁴ Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.⁵ Includes stocks located in the Strategic Petroleum Reserve.⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.⁷ Net Imports equal Imports minus Exports.⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil¹ and Petroleum Products Overview (Continued)

		Imports			Exports			Net ⁷ Imports
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	Average	5,437	3,426	2,011	722	181	541	4,715
1985	Average	5,067	3,201	1,866	781	204	577	4,286
1986	January	5,573	3,472	2,101	859	159	700	4,714
	February	4,676	2,968	1,709	876	162	715	3,800
	March	4,712	2,988	1,724	732	212	520	3,980
	April	5,439	3,684	1,755	850	94	756	4,589
	May	6,400	4,250	2,150	724	98	625	5,676
	June	6,848	4,635	2,213	642	240	401	6,206
	July	6,942	4,726	2,216	685	65	620	6,256
	August	7,168	4,859	2,309	868	233	635	6,300
	September	7,090	5,031	2,059	714	161	553	6,375
	October	6,427	4,419	2,008	831	151	680	5,597
	November	6,592	4,615	1,977	821	115	706	5,771
	December	6,700	4,412	2,288	820	159	661	5,881
	Average	6,224	4,178	2,045	785	154	631	5,439
1987	January	6,186	4,385	1,801	829	96	732	5,358
	February	5,849	3,896	1,953	991	299	692	4,858
	March	5,618	3,742	1,875	726	165	561	4,892
	April	5,830	4,115	1,715	864	247	617	4,966
	May	5,918	4,243	1,675	659	69	590	5,259
	June	6,688	4,788	1,900	665	116	549	6,023
	July	7,448	5,259	2,189	674	149	525	6,773
	August	7,334	5,470	1,863	662	141	521	6,672
	September	7,051	5,085	1,965	792	116	676	6,258
	October	6,899	5,119	1,780	642	84	558	6,257
	November	6,905	4,939	1,966	737	164	573	6,168
	December	6,705	4,571	2,134	1,057	220	838	5,647
	Average	6,541	4,639	1,901	773	154	619	5,767
1988	January	6,900	4,619	2,281	891	212	679	6,009
	February	6,995	4,692	2,303	867	149	718	6,128
	March*	^R 6,727	^R 4,788	^R 1,938	^R 839	^R 218	^R 622	^R 5,888
	April**	<i>6,828</i>	<i>5,032</i>	<i>1,796</i>	^E 878	^E 178	^E 700	^E 5,950
	4-Mo. Average	6,860	4,782	2,078	^E 869	^E 190	^E 679	^E 5,992
1987	4-Mo. Average	5,872	4,037	1,834	849	199	650	5,023
1986	4-Mo. Average	5,108	3,282	1,826	828	157	671	4,280

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate.

* See Explanatory Note 9.1.

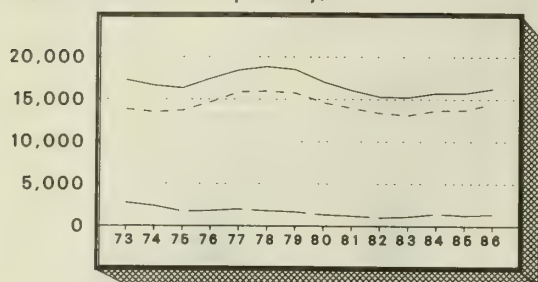
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

(Thousand Barrels per Day)



Annual

Legend
Petroleum Products Supplied
Refinery Production
Net Petroleum Products Imports

20,000

15,000

10,000

5,000

0

M A M J J A S O N D J F M A

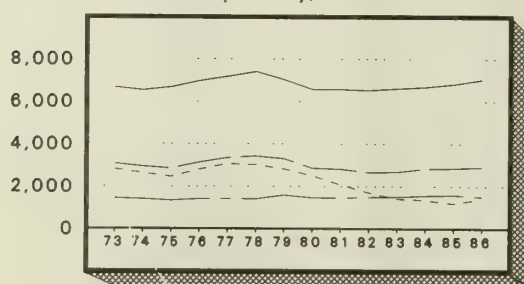
1987

1988

Monthly

Figure S2. Petroleum Products Supplied

(Thousand Barrels per Day)



Annual

Legend
Motor Gasoline
Distillate Fuel Oil
Residual Fuel Oil
Liquefied Petroleum Gases

8,000

6,000

4,000

2,000

0

M A M J J A S O N D J F M A

1987

1988

Monthly

Figure S3. Crude Oil Supply and Disposition

(Thousand Barrels per Day)

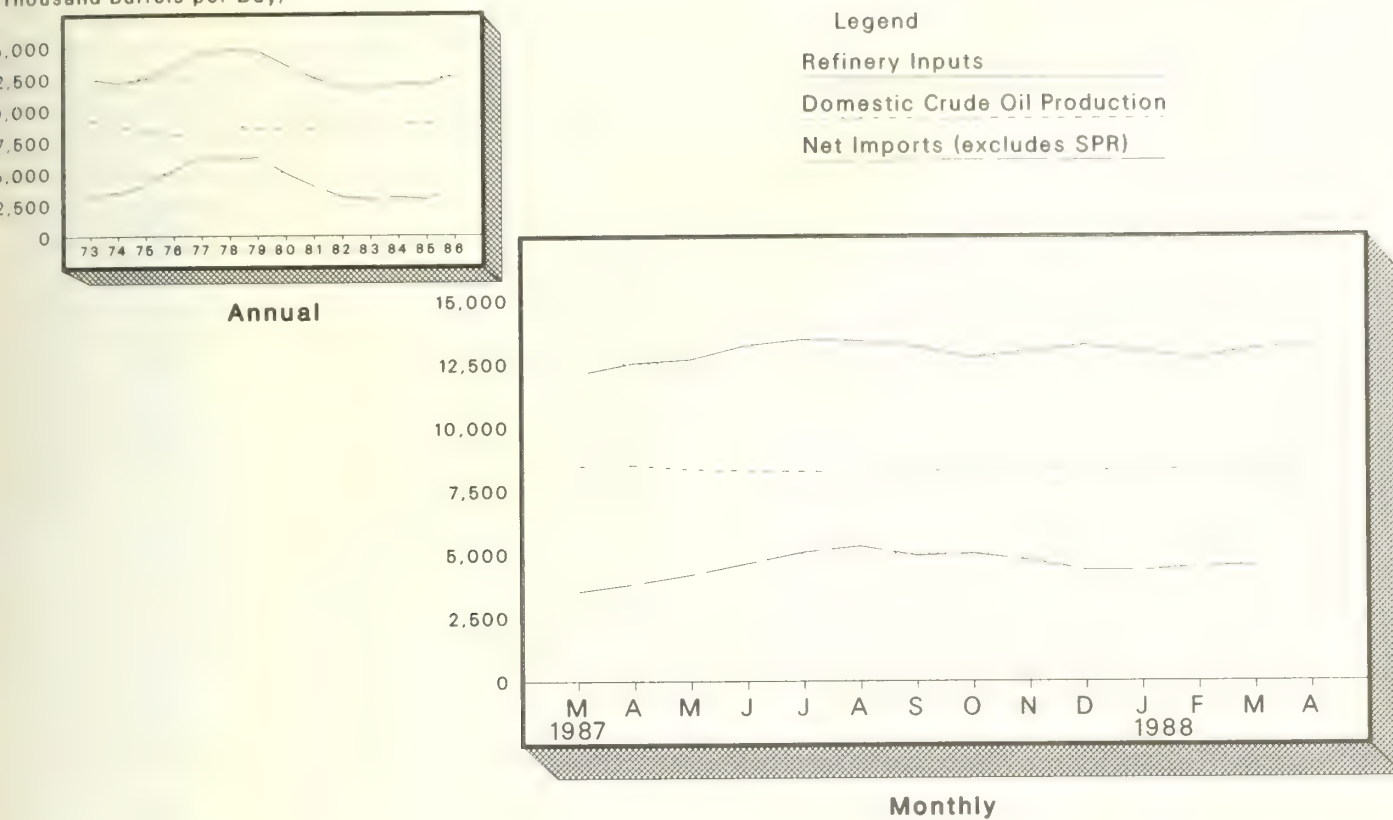


Figure S4. Crude Oil Ending Stocks

(Million Barrels)

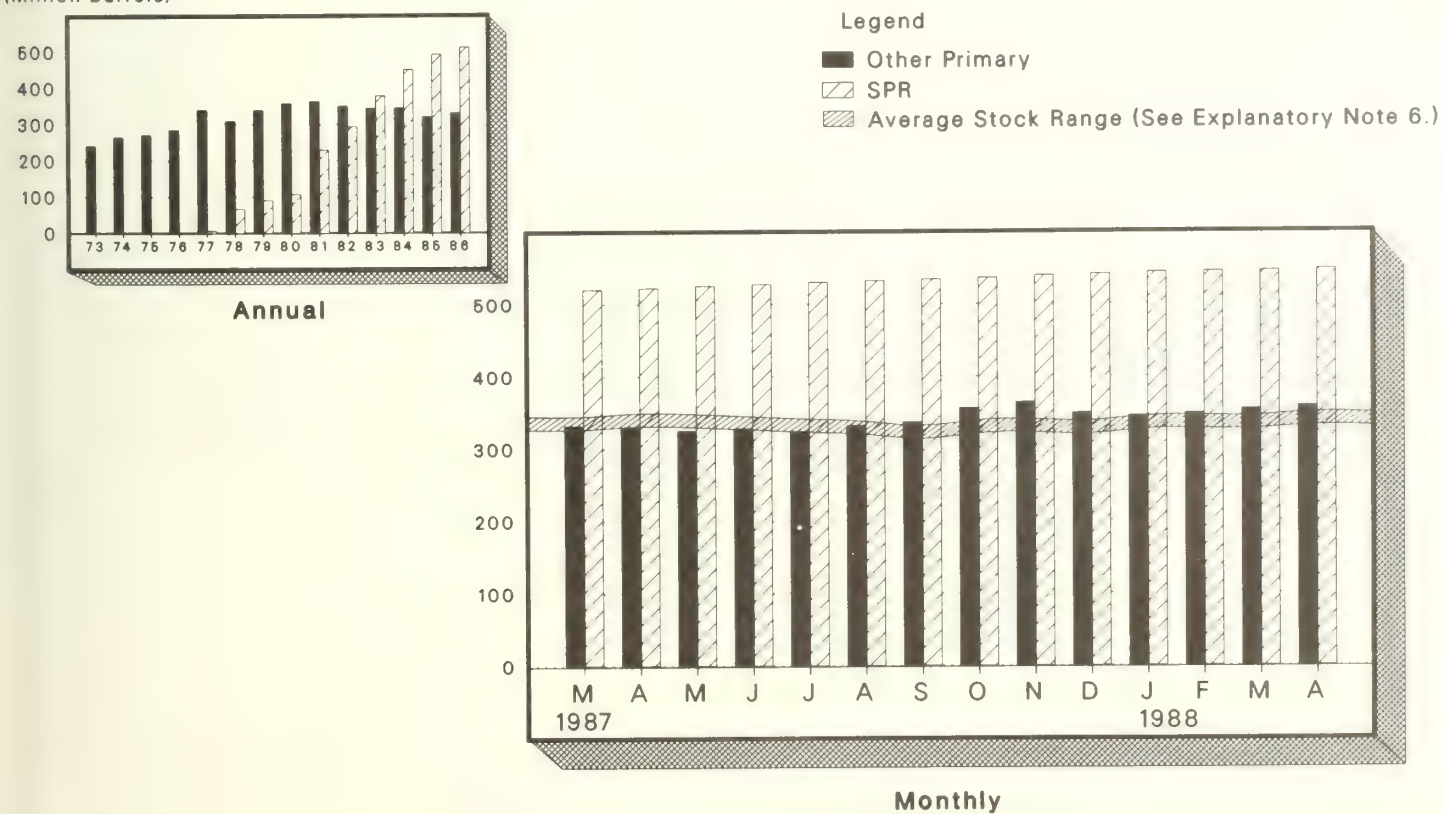


Table S2. Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil ⁵
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
Thousand Barrels per Day									
1973	Average	9,208	198	3,244	—	3,244	—	11	3
1974	Average	8,774	193	3,477	—	3,477	—	-62	-25
1975	Average	8,375	191	4,105	—	4,105	—	-17	17
1976	Average	8,132	173	5,287	—	5,287	—	-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	⁷ 46	83
1982	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	Average	8,688	1,714	3,329	234	3,096	-234	⁷ 20	114
1984	Average	8,879	1,722	3,426	197	3,229	-195	-4	185
1985	Average	8,971	1,825	3,201	118	3,083	-117	67	145
1986	January	9,137	1,870	3,472	51	3,420	-35	-348	364
	February	9,173	1,907	2,968	24	2,944	-35	-2	32
	March	9,013	1,860	2,988	59	2,929	-49	-296	259
	April	8,864	1,836	3,684	63	3,621	-63	104	70
	May	8,838	1,927	4,250	36	4,215	-35	295	79
	June	8,623	1,887	4,635	64	4,571	-64	66	292
	July	8,660	1,903	4,726	52	4,674	-52	-489	189
	August	8,374	1,811	4,859	51	4,809	-51	293	93
	September	8,328	1,782	5,031	47	4,984	-47	-170	161
	October	8,419	1,927	4,419	37	4,382	-36	-197	223
	November	8,412	1,883	4,615	45	4,570	-65	160	-136
	December	8,352	1,807	4,412	48	4,365	-68	254	28
	Average	8,680	1,867	4,178	48	4,130	-50	-28	139
1987	January	^E 8,477	^E 2,017	4,385	92	4,293	-108	-81	34
	February	^E 8,318	^E 1,853	3,896	44	3,851	-64	64	422
	March	^E 8,349	^E 1,968	3,742	95	3,647	-106	-45	349
	April	^E 8,426	^E 1,990	4,115	57	4,058	-67	78	249
	May	^E 8,305	^E 1,979	4,243	92	4,151	-101	183	143
	June	^E 8,263	^E 1,930	4,788	64	4,724	-69	-149	518
	July	^E 8,242	^E 1,910	5,259	76	5,183	-91	116	87
	August	^E 8,190	^E 1,908	5,470	63	5,407	-63	-259	215
	September	^E 8,190	^E 1,874	5,085	64	5,021	-64	-145	251
	October	^E 8,293	^E 1,986	5,119	57	5,062	-57	-471	-50
	November	^E 8,330	^E 2,068	4,939	97	4,842	-97	-321	320
	December	^E 8,340	^E 2,043	4,571	68	4,503	-68	438	180
	Average	^E 8,311	^E 1,961	4,639	73	4,567	-80	-50	224
1988	January	^E 8,245	^E 1,999	4,619	67	4,552	-67	123	303
	February	^E 8,376	^E 2,070	4,692	49	4,643	-49	-81	-21
	March*	^{RE} 8,347	^{RE} 2,086	^R 4,788	^R 23	^R 4,766	^R -26	^R -187	^R 419
	April**	^{PE} 8,269	^{PE} 2,094	5,032	64	4,968	-64	-265	^E 406
	4-Mo. Average	^{PE} 8,308	^{PE} 2,062	4,782	51	4,732	-51	-102	^E 281
1987	4-Mo. Average	^E 8,394	^E 1,959	4,037	73	3,964	-87	2	260
1986	4-Mo. Average	9,045	1,868	3,282	50	3,233	-46	-141	186

¹ Includes lease condensate.² Stocks are totals as of end of period.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Strategic Petroleum Reserve.⁵ A balancing item.⁶ Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.⁷ Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels.

See Explanatory Notes 10 and 11.

Footnotes continued on following page.

Table S2. Crude Oil¹ Supply and Disposition (Continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ⁶	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁶	Total	SPR ⁴	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	Average	-19	13	12,431	2	--	242	--	242
1974	Average	-15	13	12,133	3	--	265	--	265
1975	Average	-17	13	12,442	5	--	271	--	271
1976	Average	-18	15	13,416	8	--	285	--	285
1977	Average	-14	16	14,602	50	--	348	7	340
1978	Average	-14	16	14,739	158	--	376	67	309
1979	Average	-13	16	14,648	235	--	430	91	339
1980	Average	-13	15	13,481	287	--	466	108	358
1981	Average	-58	5	12,470	228	--	594	230	363
1982	Average	-59	3	11,774	236	--	644	294	350
1983	Average	--	2	11,685	164	66	723	379	344
1984	Average	--	2	12,044	181	64	796	451	345
1985	Average	--	1	12,002	204	60	814	493	321
1986	January	--	1	12,374	159	57	826	494	332
	February	--	(s)	11,918	162	56	827	495	332
	March	--	(s)	11,652	212	52	838	497	341
	April	--	(s)	12,512	94	51	837	499	338
	May	--	(s)	13,279	98	49	829	500	329
	June	--	(s)	13,261	240	52	828	502	327
	July	--	(s)	12,917	65	51	845	503	342
	August	--	(s)	13,287	233	48	838	505	333
	September	--	(s)	13,097	161	45	844	506	338
	October	--	(s)	12,636	151	41	851	508	344
	November	--	(s)	12,831	115	41	849	509	339
	December	--	(s)	12,777	159	42	843	512	331
	Average	--	(s)	12,716	154	49	--	--	--
1987	January	--	1	12,570	96	41	849	515	334
	February	--	(s)	12,296	299	41	849	517	332
	March	--	1	12,085	165	39	853	520	333
	April	--	(s)	12,513	247	41	853	522	331
	May	--	(s)	12,662	69	42	850	525	325
	June	--	(s)	13,200	116	36	857	527	330
	July	--	(s)	13,432	149	32	856	530	326
	August	--	(s)	13,381	141	31	866	532	334
	September	--	(s)	13,174	116	28	873	534	339
	October	--	(s)	12,725	84	25	889	536	353
	November	--	(s)	12,982	164	25	901	539	363
	December	--	(s)	13,210	220	31	890	541	349
	Average	--	(s)	12,856	154	34	--	--	--
1988	January	--	(s)	12,975	212	36	888	543	345
	February	--	(s)	12,715	149	52	892	544	348
	March*	--	(s)	13,072	218	52	899	545	354
	April**	--	E (s)	13,155	E 178	E 45	904	547	358
	4-Mo. Average	--	E (s)	12,982	E 190	E 46	--	--	--
1987	4-Mo. Average	--	(s)	12,367	199	40	--	--	--
1986	4-Mo. Average	--	1	12,115	157	54	--	--	--

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹									
		Algeria	Libya	Saudi Arabia ²	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ³	Total Arab OPEC ⁵
		Thousand Barrels per Day									
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993
1974	Average	190	4	461	74	300	469	713	979	88	3,280
1975	Average	282	232	715	117	390	280	762	702	122	3,601
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323
1982	Average	170	26	552	92	248	35	514	412	97	2,146
1983	Average	240	0	337	30	338	48	302	422	144	1,862
1984	Average	323	1	325	117	343	10	216	548	166	2,049
1985	Average	187	4	168	45	314	27	293	605	187	1,830
1986	January	215	0	664	11	290	0	278	629	210	2,298
	February	157	0	574	0	290	(s)	204	518	64	1,807
	March	260	0	482	0	161	0	328	797	117	2,145
	April	275	0	698	21	292	0	319	831	139	2,576
	May	193	0	574	40	314	40	398	899	290	2,749
	June	319	0	662	83	353	0	382	772	439	3,010
	July	310	0	738	59	532	66	542	730	330	3,307
	August	363	0	680	37	274	93	606	916	378	3,346
	September	245	0	810	62	341	31	684	856	356	3,383
	October	305	0	697	147	388	0	530	863	346	3,276
	November	311	0	868	34	335	0	483	843	214	3,088
	December	291	0	769	30	251	0	511	841	284	2,976
	Average	271	0	685	44	318	19	440	793	265	2,837
1987	January	158	0	873	15	285	0	313	866	215	2,726
	February	315	0	772	54	420	30	240	764	155	2,749
	March	301	0	427	0	308	73	312	658	135	2,215
	April	302	0	452	62	236	47	529	679	77	2,384
	May	196	0	519	26	289	75	530	854	95	2,584
	June	247	0	780	45	261	155	546	766	268	3,067
	July	326	0	753	42	273	237	787	861	157	3,437
	August	235	0	958	103	312	208	732	780	351	3,679
	September	351	0	902	146	236	193	615	798	287	3,528
	October	267	0	1,042	111	297	86	518	775	401	3,497
	November	378	0	633	97	205	41	607	739	402	3,101
	December	339	0	853	7	216	23	613	672	220	2,941
	Average	284	0	747	59	277	98	530	768	231	2,994
1988	January	312	0	^R 849	61	179	⁶ 1	406	752	^R 540	3,100
	February	358	0	^R 1,265	79	148	0	501	830	^R 214	3,394
	March	259	0	934	6	123	0	541	790	352	3,006
	3-Mo. Average	309	0	1,010	48	150	(s)	482	790	372	3,162
1987	3-Mo. Average	256	0	688	22	335	34	290	763	169	2,557
1986	3-Mo. Average	212	0	574	4	246	(s)	272	652	133	2,092

¹ Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

² Prior to January 1988, data on crude oil and petroleum product imports from the Neutral Zone are included in the data for Saudi Arabia. From January 1988 forward, those imports are included in the data for "Other OPEC."

³ "Other OPEC" consists of Ecuador, Gabon, Iraq, Kuwait, Neutral Zone, and Qatar.

⁴ Total OPEC consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members.

⁵ The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Neutral Zone, Qatar, Saudi Arabia, and the United Arab Emirates.

⁶ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources ⁷										Total Imports
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	
Thousand Barrels per Day												
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	January	62	823	681	58	108	333	21	326	862	3,275	5,573
	February	33	690	557	11	85	218	18	309	949	2,870	4,676
	March	18	750	616	27	79	178	25	186	688	2,567	4,712
	April	34	798	694	13	111	188	23	209	793	2,863	5,439
	May	32	881	743	37	130	365	27	237	1,199	3,651	6,400
	June	29	753	884	17	167	569	30	233	1,157	3,838	6,848
	July	44	763	850	25	131	353	29	237	1,202	3,634	6,942
	August	39	801	738	12	133	584	7	214	1,294	3,822	7,168
	September	15	801	615	17	162	437	23	291	1,345	3,706	7,090
	October	38	842	680	26	112	173	21	215	1,043	3,151	6,427
	November	39	960	565	53	129	448	21	179	1,111	3,504	6,592
	December	57	809	746	7	148	351	12	291	1,304	3,724	6,700
	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	54	777	669	29	99	419	33	327	1,053	3,461	6,186
	February	54	762	689	30	111	235	24	296	900	3,100	5,849
	March	33	720	699	11	124	311	17	247	1,240	3,402	5,618
	April	43	808	667	12	113	485	24	259	1,034	3,446	5,830
	May	31	865	569	26	117	408	21	214	1,082	3,334	5,918
	June	22	898	654	13	114	377	21	281	1,240	3,621	6,688
	July	46	890	664	58	96	334	17	288	1,618	4,011	7,448
	August	26	837	564	51	98	289	20	274	1,496	3,655	7,334
	September	36	835	699	42	105	254	25	271	1,256	3,523	7,051
	October	17	932	658	16	88	320	17	250	1,104	3,402	6,899
	November	20	818	627	14	111	425	15	235	1,540	3,804	6,905
	December	7	896	588	24	67	324	23	327	1,508	3,764	6,705
	Average	32	837	645	27	103	349	21	272	1,259	3,547	6,541
1988	January	49	953	767	40	104	312	29	341	1,205	3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	March	45	989	745	30	89	461	22	180	1,160	3,720	6,727
	3-Mo. Average	51	979	738	30	96	363	22	241	1,190	3,709	6,871
1987	3-Mo. Average	47	753	685	23	112	325	25	290	1,070	3,328	5,885
1986	3-Mo. Average	38	756	620	33	91	244	21	273	829	2,905	4,997

Footnotes continued.

⁷ Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

R = Revised data. (s) = Less than 500 barrels per day.

Notes: * Beginning in October 1977, Strategic Petroleum Reserve imports are included. * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)

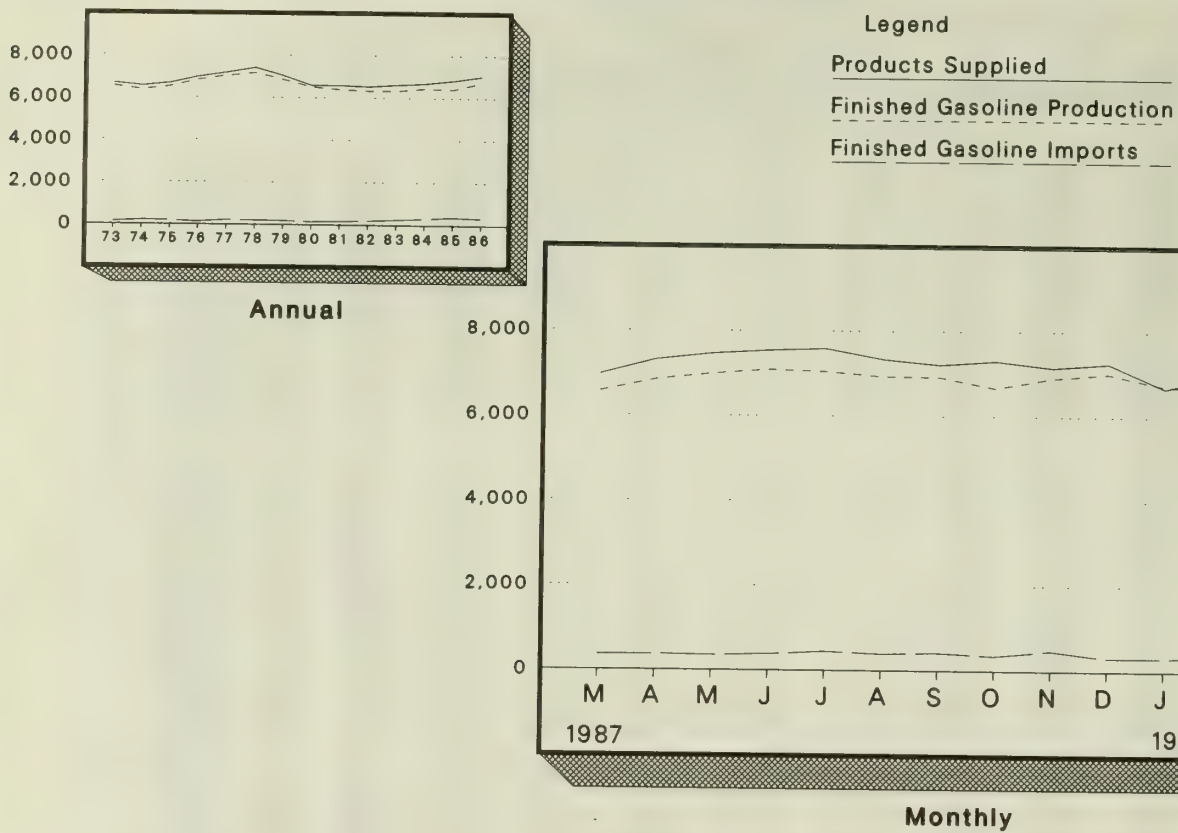
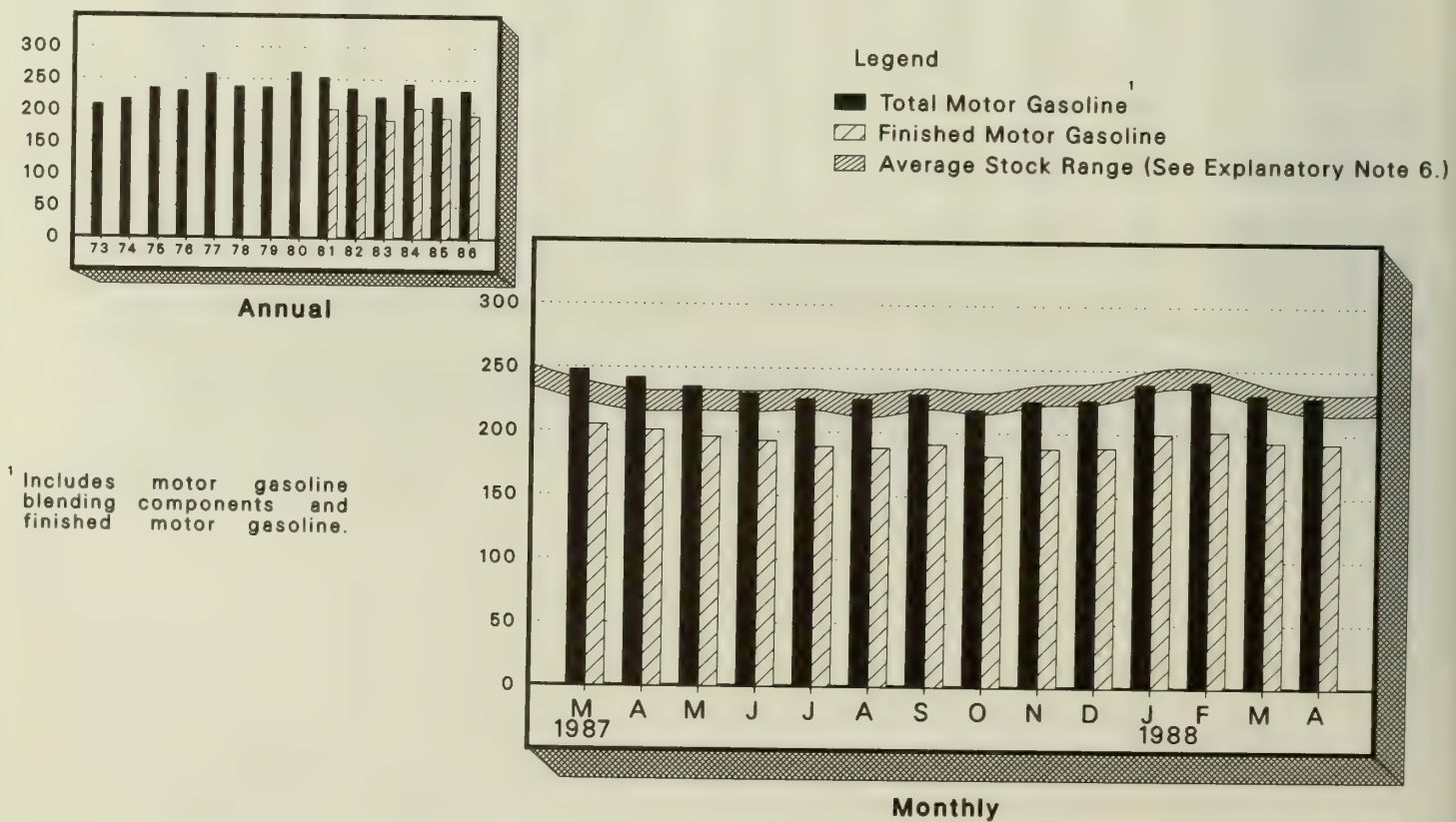


Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)



¹ Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawal ^{2 3}	Exports	Product Supplied		Total Motor Gasoline ⁵	Finished Motor Gasoline	
						Total ⁴	Unleaded			Unleaded
								Thousand Barrels per Day		
1973	Average	6,535	134	9	4	6,674	--	--	209	--
1974	Average	6,360	204	-24	2	6,537	--	--	218	--
1975	Average	6,520	184	⁶ -28	2	6,675	--	--	235	--
1976	Average	6,841	131	10	3	6,978	--	--	231	--
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	--
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	--
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	25	20	6,539	3,409	52.1	⁶ 235	--
1983	Average	6,340	247	⁶ 45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	-54	8	6,693	3,987	59.6	243	205
1985	Average	6,419	381	41	10	6,831	4,406	64.5	223	190
1986	January	6,522	332	-347	6	6,502	4,404	67.7	238	201
	February	6,302	334	-156	11	6,469	4,365	67.5	244	205
	March	6,061	224	691	21	6,955	4,678	67.3	219	184
	April	6,498	291	338	23	7,105	4,783	67.3	207	174
	May	7,095	471	-450	9	7,106	4,729	66.5	221	188
	June	7,101	392	-265	18	7,209	4,914	68.2	230	196
	July	6,956	337	189	47	7,436	5,182	69.7	224	190
	August	7,092	303	83	43	7,435	5,138	69.1	222	187
	September	6,891	303	-289	40	6,864	4,813	70.1	234	196
	October	6,616	322	372	61	7,250	5,086	70.1	222	184
	November	6,895	280	-200	96	6,879	4,918	71.5	229	190
	December	6,970	320	-122	24	7,143	5,193	72.7	233	194
	Average	6,752	326	-11	33	7,034	4,854	69.0	--	--
	1987	January	6,688	320	-484	55	6,469	4,775	73.8	250
February		6,367	303	78	22	6,726	4,991	74.2	251	207
March		6,555	342	43	20	6,921	5,150	74.4	249	206
April		6,851	362	145	42	7,317	5,401	73.8	243	201
May		6,991	348	181	48	7,472	5,577	74.6	235	196
June		7,089	385	103	46	7,531	5,657	75.1	231	193
July		7,041	448	119	33	7,575	5,734	75.7	227	189
August		6,933	361	38	19	7,313	5,628	77.0	226	188
September		6,925	383	-109	30	7,170	5,500	76.7	230	191
October		6,662	348	300	21	7,289	5,616	77.1	218	182
November		6,914	474	-205	32	7,151	5,587	78.1	225	188
December		7,017	318	-29	59	7,247	5,711	78.8	226	189
Average		6,839	366	15	36	7,184	5,447	75.8	--	--
1988		January	6,723	324	-361	8	6,679	5,392	80.7	239
	February	6,736	365	-78	18	7,004	5,571	79.5	241	202
	March*	^R 6,695	^R 318	^R 271	^R 18	^R 7,265	^R 5,845	^R 80.4	231	194
	April**	6,861	168	34	^E 13	7,050	5,678	80.6	229	193
	4-Mo. Average	6,753	294	-33	^E 14	6,999	5,622	80.3	--	--
1987	4-Mo. Average	6,620	332	-59	35	6,858	5,079	74.0	--	--
1986	4-Mo. Average	6,346	295	137	15	6,762	4,560	67.5	--	--

¹ Stocks are totals as of end of period.² Beginning in 1981, excludes blending components.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Includes gasohol.⁵ Includes motor gasoline blending components.⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

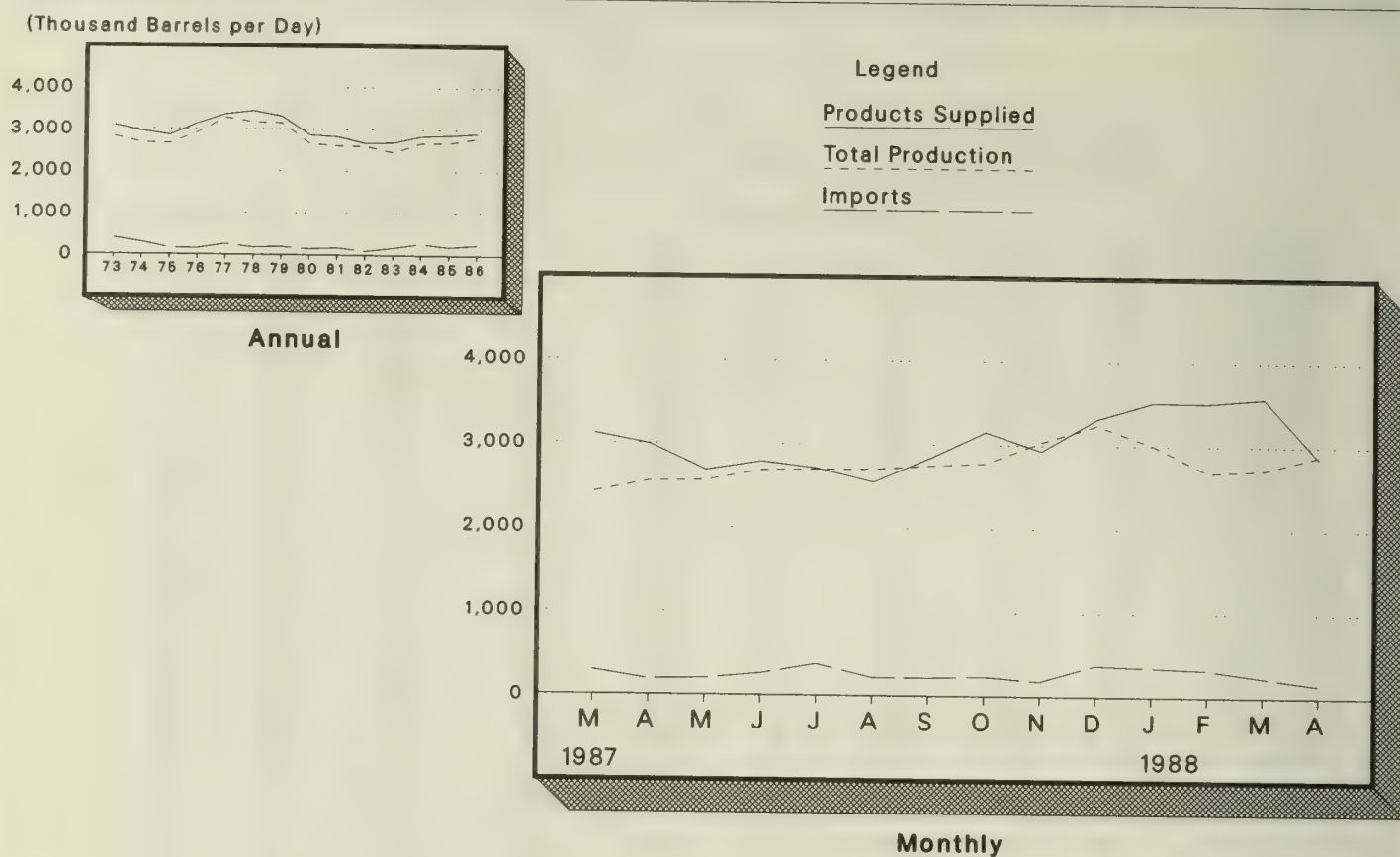


Figure S8. Distillate Fuel Oil Ending Stocks

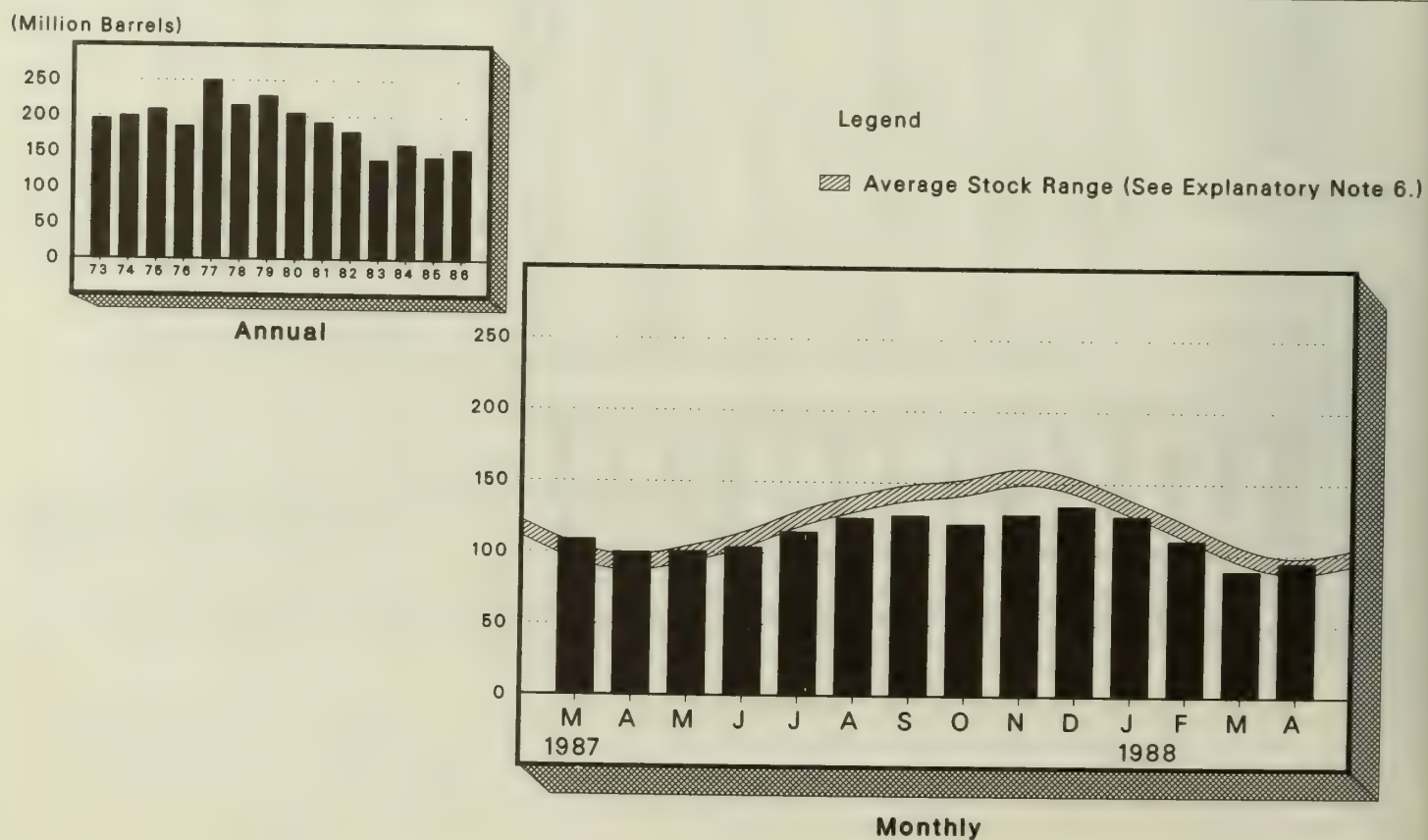


Table S5. Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
								Million Barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	⁴ 179
1983	Average	2,456	174	⁴ 124	-	64	2,690	140
1984	Average	2,681	272	-57	-	51	2,845	161
1985	Average	2,687	200	48	--	67	2,868	144
1986	January	2,899	325	232	--	126	3,330	136
	February	2,563	169	860	--	176	3,416	112
	March	2,643	217	438	--	131	3,168	99
	April	2,788	147	97	--	128	2,904	96
	May	2,858	149	-95	--	149	2,762	99
	June	2,729	169	-301	--	53	2,544	108
	July	2,710	313	-355	--	75	2,592	119
	August	2,922	370	-607	--	64	2,621	138
	September	2,865	262	-489	--	98	2,540	152
	October	2,717	243	25	--	74	2,912	152
	November	2,917	254	-222	--	72	2,877	158
	December	2,943	339	102	--	55	3,329	155
	Average	2,798	247	-31	--	100	2,914	--
1987	January	2,774	197	440	--	152	3,259	141
	February	2,574	229	637	--	93	3,347	124
	March	2,384	251	437	--	67	3,005	110
	April	2,553	185	319	--	53	3,004	100
	May	2,565	201	-45	--	51	2,670	102
	June	2,689	248	-82	--	61	2,793	104
	July	2,700	378	-336	--	38	2,704	115
	August	2,711	215	-338	--	47	2,540	125
	September	2,750	217	-59	--	64	2,844	127
	October	2,778	222	187	--	53	3,134	121
	November	3,043	180	-263	--	56	2,904	129
	December	3,241	354	-176	--	92	3,327	134
	Average	2,731	240	56	--	69	2,959	--
1988	January	3,008	355	236	--	82	3,517	127
	February	2,683	330	604	--	107	3,511	110
	March*	^R 2,720	^R 243	^R 656	--	^R 74	^R 3,544	^R 89
	April**	2,894	155	-102	--	^E 95	2,852	95
	4-Mo. Average	2,828	271	348	--	^E 89	3,358	--
1987	4-Mo. Average	2,571	215	455	--	92	3,150	--
1986	4-Mo. Average	2,727	216	398	--	139	3,202	--

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

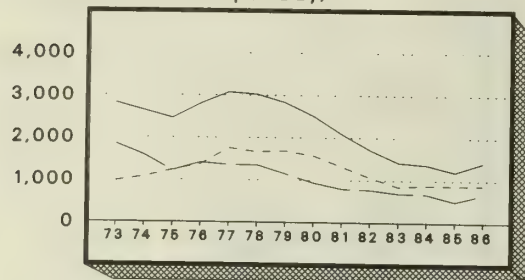
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

(Thousand Barrels per Day)



Annual

Legend
Products Supplied
Total Production
Imports

4,000

3,000

2,000

1,000

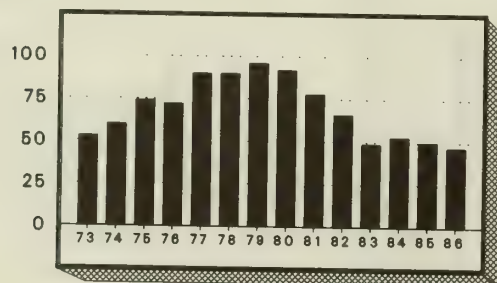
0

M A M J J A S O N D J F M A
1987 1988

Monthly

Figure S10. Residual Fuel Oil Ending Stocks

(Million Barrels)



Annual

Legend

▨ Average Stock Range (See Explanatory Note 6.)

100

75

50

25

0

M A M J J A S O N D J F M A
1987 1988

Monthly

Table S6. Residual Fuel Oil Supply and Disposition

						Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
		Thousand Barrels per Day						Million Barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	⁴ 92
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	⁴ 66
1983	Average	852	699	⁴ 55	—	185	1,421	49
1984	Average	891	681	-12	—	190	1,369	53
1985	Average	882	510	7	—	197	1,202	50
1986	January	940	622	56	—	211	1,407	49
	February	856	604	200	—	183	1,478	43
	March	813	626	108	—	113	1,435	40
	April	933	545	127	—	202	1,402	36
	May	913	675	-114	—	129	1,345	39
	June	818	712	-111	—	43	1,377	43
	July	850	673	75	—	90	1,508	40
	August	896	793	-29	—	174	1,485	41
	September	854	641	-89	—	110	1,296	44
	October	827	635	-59	—	144	1,259	46
	November	975	574	-15	—	143	1,391	46
	December	987	913	-37	—	224	1,638	47
	Average	889	669	8	—	147	1,418	—
1987	January	919	667	80	—	204	1,462	45
	February	833	612	246	—	221	1,470	38
	March	867	552	-48	—	150	1,220	40
	April	831	541	123	—	239	1,257	36
	May	814	498	-142	—	144	1,026	40
	June	863	477	-33	—	101	1,206	41
	July	902	680	-122	—	175	1,285	45
	August	877	511	-12	—	185	1,190	45
	September	905	513	42	—	177	1,283	44
	October	885	380	-36	—	194	1,035	45
	November	925	546	-145	—	146	1,181	50
	December	1,001	664	76	—	300	1,441	47
	Average	885	553	(s)	—	186	1,253	—
1988	January	1,009	737	23	—	190	1,578	47
	February	997	792	40	—	229	1,601	45
	March [*]	^R 944	^R 610	^R 45	—	^R 165	^R 1,434	44
	April ^{**}	960	553	61	—	^E 211	1,363	42
	4-Mo. Average	978	672	42	—	^E 198	1,493	—
1987	4-Mo. Average	863	593	97	—	203	1,350	—
1986	4-Mo. Average	886	600	121	—	177	1,429	—

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

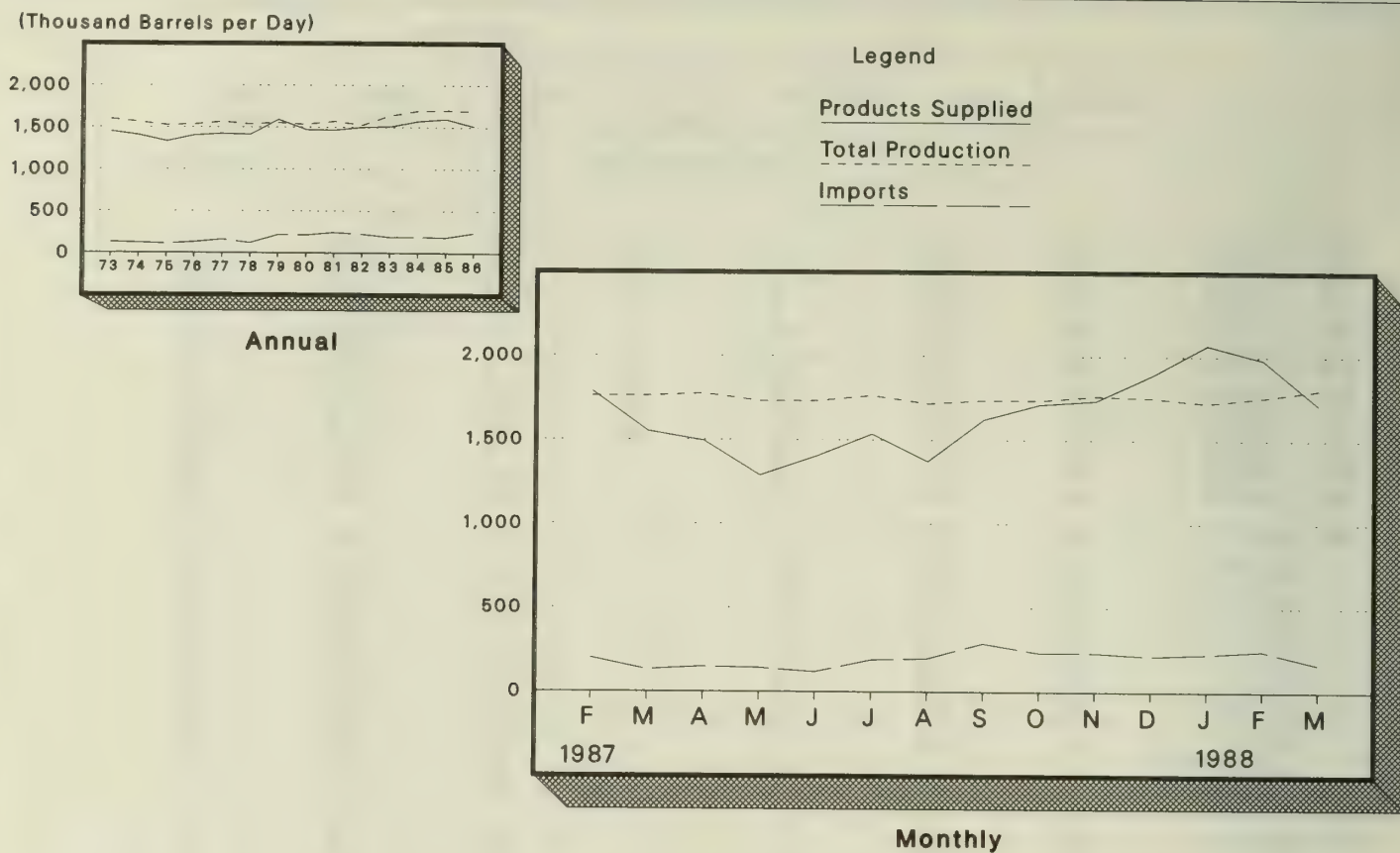


Figure S12. Liquefied Petroleum Gases Ending Stocks

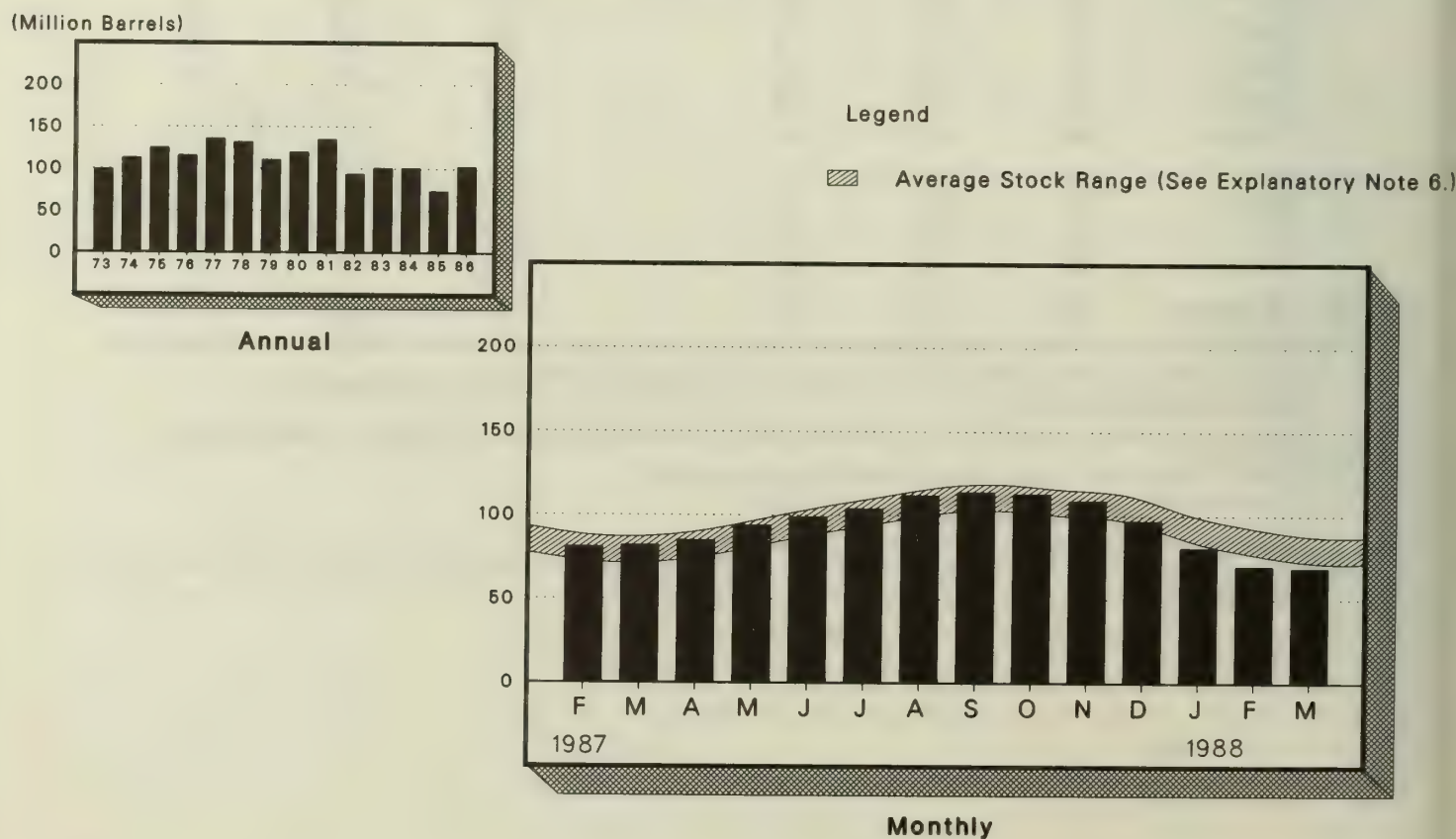


Table S7. Liquefied Petroleum Gases¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
								Million Barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	⁴ 113
1975	Average	1,527	112	⁴ -35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	⁴ 120
1981	Average	1,571	244	⁴ -18	289	42	1,466	135
1982	Average	1,528	226	111	300	65	1,499	⁴ 94
1983	Average	1,642	190	⁴ 4	253	73	1,509	⁴ 101
1984	Average	1,697	195	⁴ 19	291	48	1,572	101
1985	Average	1,704	187	75	304	62	1,599	74
1986	January	1,850	280	80	364	47	1,800	71
	February	1,815	208	108	325	74	1,733	68
	March	1,693	202	-98	250	47	1,500	71
	April	1,642	134	-200	256	33	1,286	77
	May	1,685	196	-336	267	40	1,238	87
	June	1,649	253	-490	228	25	1,158	102
	July	1,684	303	-450	199	50	1,287	116
	August	1,619	271	-332	243	53	1,262	126
	September	1,631	282	-142	288	27	1,456	131
	October	1,625	234	249	332	26	1,750	123
	November	1,724	310	254	417	53	1,817	115
	December	1,725	227	411	456	33	1,875	103
	Average	1,695	242	-80	302	42	1,512	-
1987	January	1,764	188	493	419	38	1,988	87
	February	1,784	201	206	341	36	1,815	82
	March	1,768	132	-19	282	42	1,556	82
	April	1,781	149	-139	276	30	1,486	86
	May	1,736	142	-286	270	27	1,296	95
	June	1,741	119	-182	255	17	1,407	101
	July	1,767	190	-155	244	24	1,534	106
	August	1,722	198	-214	251	31	1,424	112
	September	1,741	288	-134	266	52	1,576	116
	October	1,741	233	171	294	19	1,832	111
	November	1,766	233	1	357	35	1,609	111
	December	1,759	214	442	395	56	1,963	97
	Average	1,756	190	15	304	34	1,623	-
1988	January	1,723	226	529	366	44	2,069	81
	February	1,757	245	364	336	47	1,982	70
	March [*]	1,802	165	45	266	36	1,710	69
	3-Mo. Average	1,761	211	311	322	42	1,919	-
1987	3-Mo. Average	1,772	173	227	347	39	1,785	-
1986	3-Mo. Average	1,785	231	28	313	56	1,675	-

¹ Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

* See Explanatory Note 9.5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,418	277	⁴ 4	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	⁴ 253
1983	Average	3,460	411	⁴ 6	712	242	2,923	⁴ 256
1984	Average	3,632	565	⁴ 23	791	245	3,183	240
1985	Average	3,721	588	-17	886	240	3,166	246
1986	January	3,902	541	⁵ -172	967	311	2,993	252
	February	3,868	393	-209	747	270	3,035	⁵ 258
	March	3,754	454	⁵ 21	854	208	3,167	257
	April	3,788	638	-100	760	369	3,196	260
	May	4,055	659	-114	810	298	3,492	⁵ 264
	June	4,209	687	⁵ -70	853	263	3,710	266
	July	4,145	589	⁵ 119	1,064	357	3,432	262
	August	4,223	572	⁵ 335	1,061	301	3,768	⁵ 252
	September	4,225	571	⁵ 35	846	278	3,708	⁵ 251
	October	3,969	575	⁵ -112	666	375	3,391	254
	November	3,904	559	⁵ 36	940	342	3,217	253
	December	3,920	490	⁵ 90	1,069	325	3,105	250
	Average	3,997	561	-10	888	308	3,353	--
1987	January	3,835	428	-152	665	283	3,164	256
	February	3,773	608	-354	385	320	3,322	266
	March	3,772	599	-146	717	281	3,225	270
	April	3,948	478	110	885	254	3,397	267
	May	4,054	486	171	918	320	3,473	262
	June	4,195	671	197	898	323	3,842	256
	July	4,354	493	110	835	256	3,866	253
	August	4,336	580	-152	697	238	3,828	257
	September	4,346	565	-16	909	353	3,632	258
	October	4,219	597	19	969	272	3,594	257
	November	3,999	533	-40	993	305	3,195	258
	December	4,053	584	266	1,090	330	3,484	250
	Average	4,076	551	3	833	294	3,503	--
1988	January	3,988	639	-143	785	354	3,345	254
	February	3,941	570	-35	726	318	3,433	255
	March*	4,175	603	-269	656	328	3,525	264
	3-Mo. Average	4,037	605	-151	722	333	3,435	--
1987	3-Mo. Average	3,794	543	-213	596	294	3,234	--
1986	3-Mo. Average	3,840	465	-117	860	263	3,066	--

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁵ Ending stocks and stock withdrawal for 1986 are slightly different from those published in the 1986 *Petroleum Supply Annual* (PSA)-- Volume 1. PSA statistics inadvertently omitted stocks of other hydrocarbons and alcohol.

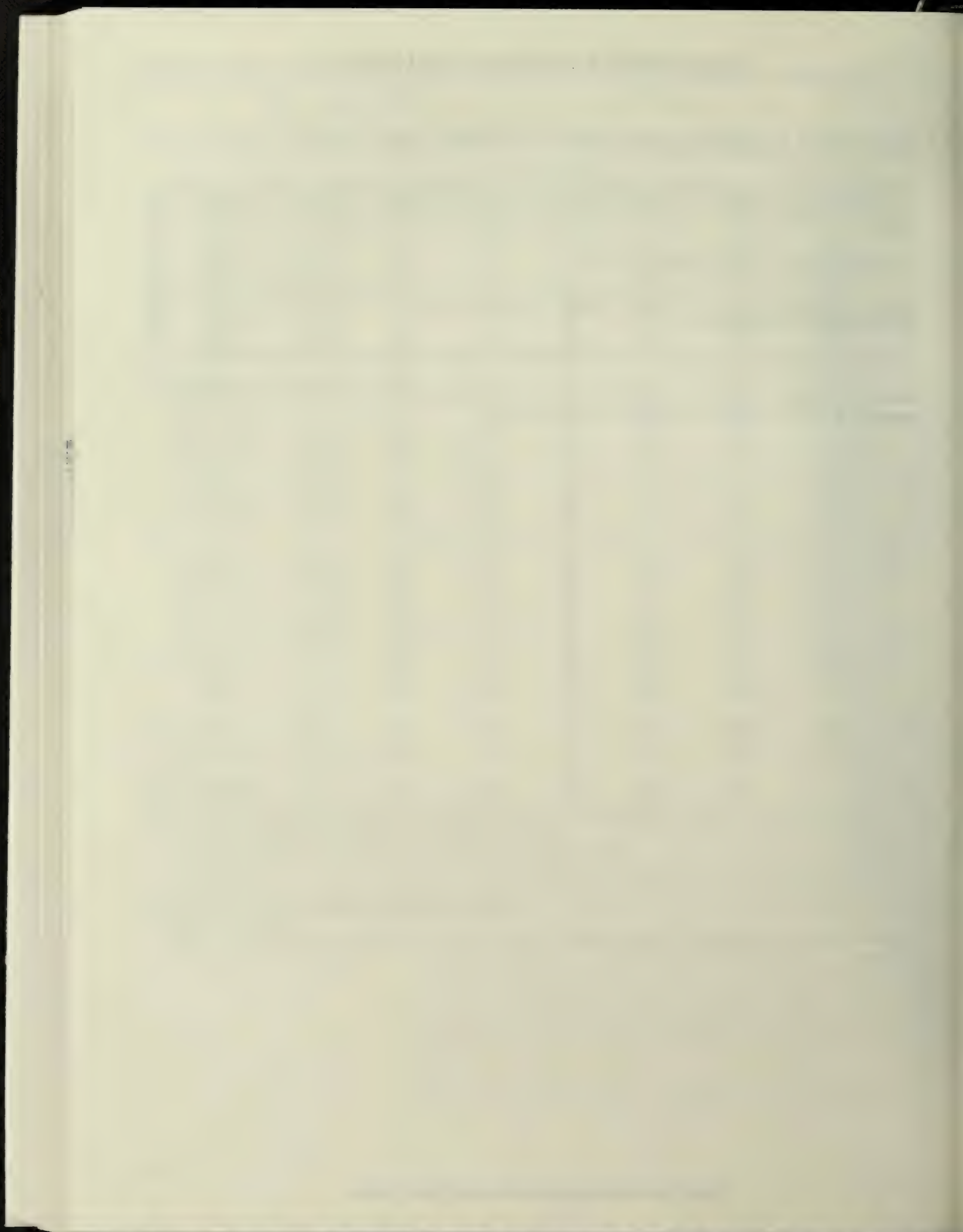
* See Explanatory Note 9.6.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

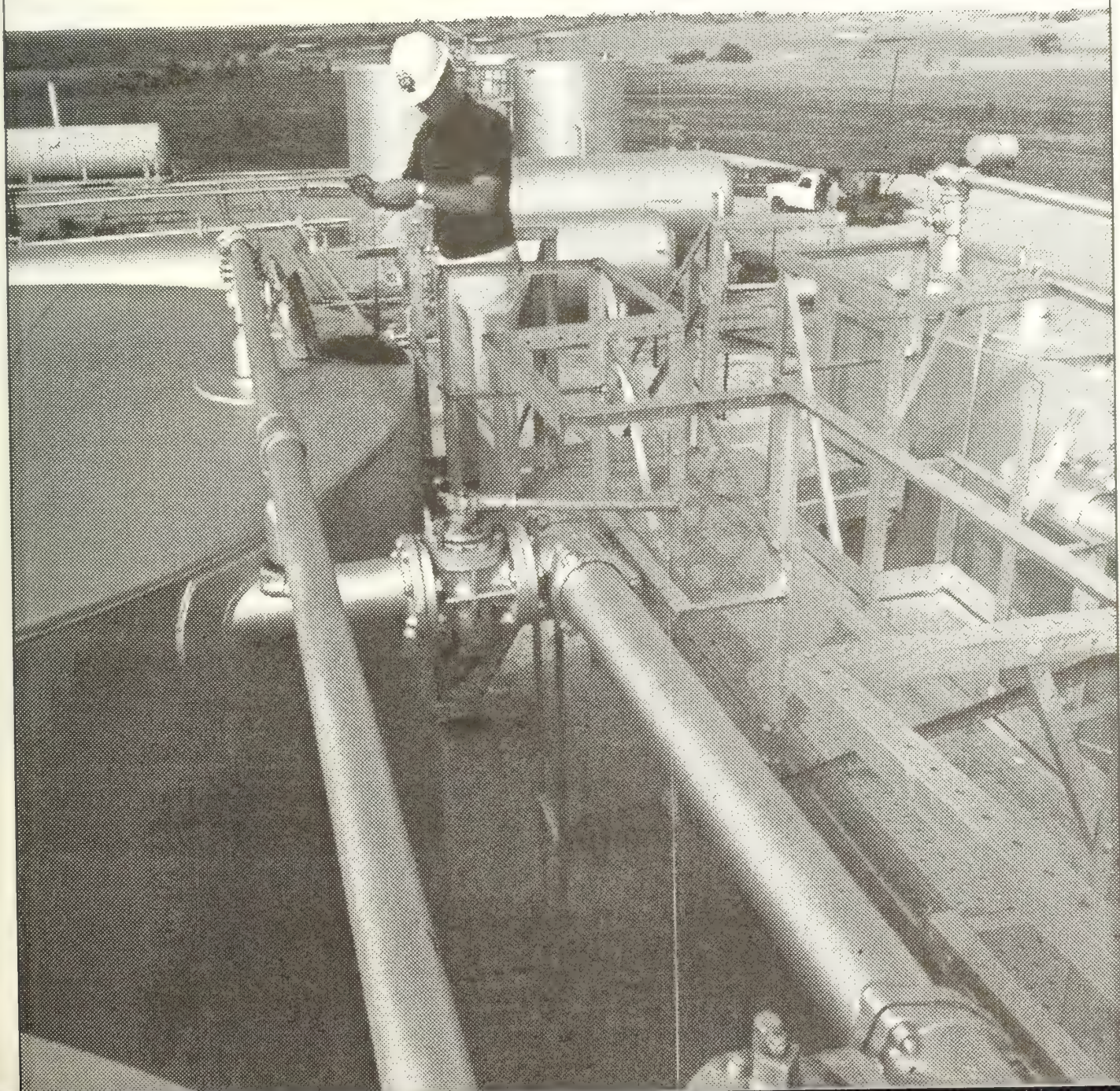
Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1986: EIA, *Petroleum Supply Annual*.
4. January 1987 through March 1988: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6.)
5. April 1988: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 1.1.)
6. January 1987 through April 1988: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey. (See Explanatory Note 3.)



Detailed Statistics



THE
JOURNAL

11

Table 1. U.S. Petroleum Balance, March 1988

	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 64,669	E 2,086	E 186,659	E 2,051
(2) Lower 48 States	E 194,102	E 6,261	E 570,586	E 6,270
(3) Total U.S.	E 258,771	E 8,347	E 757,245	E 8,321
Net Imports				
(4) Imports (Gross Excluding SPR)	147,732	4,766	423,501	4,654
(5) SPR Imports	702	23	4,203	46
(6) Exports	6,744	218	17,640	194
(7) Imports (Net Including SPR)	141,690	4,571	410,064	4,506
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-792	-26	-4,290	-47
(9) Other Stock Withdrawal (+) or Addition (-)	-5,790	-187	-4,336	-48
(10) Product Supplied and Losses	-1,615	-52	-4,240	-47
(11) Unaccounted for ¹	12,982	419	21,758	239
(12) Total Other Sources	4,785	154	8,892	98
(13) Crude Input to Refineries	405,246	13,072	1,176,201	12,925
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	50,459	1,628	145,326	1,597
(15) Net Imports ²	305	10	1,062	12
(16) Stock Withdrawal (+) or Addition (-) ²	-766	-25	-588	-6
(17) Total NGPL Supply	49,998	1,613	145,800	1,602
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	-3,348	-108	-8,938	-98
(19) Imports	10,399	335	33,153	364
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	2,146	69	5,341	59
(21) Refinery Processing Gain ¹	19,983	645	61,815	679
(22) Crude Oil Product Supplied	1,609	52	4,230	46
(23) Total Other Liquids	30,789	993	95,601	1,051
(23) = (18) through (22)				
(24) Total Production of Products ³	486,033	15,678	1,417,602	15,578
(24) = (13) + (17) + (23)				
Net Imports of Refined Products ³				
(25) Imports (Gross)	49,323	1,591	163,172	1,793
(26) Exports	19,204	619	60,949	670
(27) Imports (Net)	30,119	972	102,223	1,123
(28) Total New Supply of Products	516,153	16,650	1,519,825	16,701
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) ³	27,290	880	67,494	742
(30) Total Petroleum Products Supplied for Domestic Use	543,443	17,530	1,587,319	17,443
(30) = (28) + (29)				
(31) Finished Motor Gasoline	225,228	7,265	635,389	6,982
(32) Distillate Fuel Oil	109,878	3,544	320,720	3,524
(33) Residual Fuel Oil	44,439	1,434	139,807	1,536
(34) Liquefied Petroleum Gases	53,000	1,710	174,623	1,919
(35) Other ⁴	109,289	3,525	312,550	3,435
(36) Crude Oil	1,609	52	4,230	46
(37) Total Product Supplied	543,443	17,530	1,587,319	17,443
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	353,625	--	353,625	--
(39) Strategic Petroleum Reserve (SPR)	544,938	--	544,938	--
(40) Unfinished Oils	102,134	--	102,134	--
(41) Gasoline Blending Components ⁵	38,073	--	38,073	--
(42) Pentanes Plus	7,619	--	7,619	--
(43) Finished Refined Products ³	512,120	--	512,120	--
(44) Total Stocks	1,558,509	--	1,558,509	--

¹ A balancing item.² Includes products in the pentanes plus category only.³ For products included see Explanatory Note 9.7.⁴ Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.⁵ Includes other hydrocarbons and alcohol.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, March 1988
(Thousand Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)										
E 258,771	0		148,434	-6,582	12,982	6	405,246	6,744	1,609	898,563
Natural Gas Liquids and LRGs										
50,348	14,937		5,469	617	0	0	13,376	1,175	56,820	76,427
9,418	0		368	-766	0	0	5,137	63	3,820	7,619
Liquefied Petroleum Gases	40,930	14,937	5,101	1,383	0	0	8,239	1,112	53,000	68,808
Ethane	15,038	299	142	931	0	0	71	127	16,212	17,636
Propane	16,181	10,193	2,725	929	0	0	230	604	29,194	29,242
Normal Butane	5,237	3,836	1,344	-447	0	0	3,918	319	5,733	12,604
Isobutane	4,474	609	890	-30	0	0	4,020	63	1,860	9,326
Other Liquids										
2,146	0		10,399	-3,348	0	0	15,202	0	-6,005	140,207
Other Hydrocarbons and Alcohol	2,146	0	0	-86	0	0	2,060	0	0	582
Unfinished Oils	0	0	9,078	-4,348	0	0	9,596	0	-4,866	102,134
Motor Gasoline Blending Components	0	0	1,321	1,012	0	0	3,472	0	-1,139	37,310
Aviation Gasoline Blending Components	0	0	0	74	0	0	74	0	0	181
Finished Petroleum Products										
111	438,870		44,222	25,907	0	0	0	18,092	491,019	443,312
Finished Motor Gasoline	10	207,524	9,859	8,391	0	0	0	0	225,228	193,948
Finished Leaded Motor Gasoline	9	41,207	297	2,729	0	0	0	0	44,036	48,926
Finished Unleaded Motor Gasoline	1	166,317	9,562	5,662	0	0	0	0	181,192	145,022
Finished Aviation Gasoline	0	666	0	96	0	0	0	0	762	1,984
Naphtha-Type Jet Fuel	0	6,473	66	-425	0	0	0	0	6,112	7,156
Kerosene-Type Jet Fuel	0	38,532	2,940	-2,659	0	0	0	1,624	37,189	39,548
Kerosene	0	2,122	443	581	0	0	0	21	3,125	6,350
Distillate Fuel Oil	43	84,288	7,528	20,328	0	0	0	2,309	109,878	89,312
Residual Fuel Oil	0	29,261	18,897	1,408	0	0	0	5,127	44,439	44,057
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,062	1,755	133	0	0	0	156	5,794	2,404
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,458	759	270	0	0	0	581	7,906	1,462
Special Naphthas	0	1,693	420	189	0	0	0	122	2,180	3,326
Lubricants	0	5,848	400	10	0	0	0	747	5,511	13,872
Waxes	0	543	49	61	0	0	0	45	608	789
Petroleum Coke	0	17,070	53	-20	0	0	0	6,720	10,383	7,205
Asphalt and Road Oil	0	10,552	993	-2,968	0	0	0	9	8,568	28,623
Still Gas	0	20,560	0	0	0	0	0	0	20,560	0
Miscellaneous Products	58	2,218	60	512	0	0	0	70	2,778	3,276
Total	311,376	453,807	208,524	16,594	12,982	6	433,824	26,011	543,443	1,558,509

1 Unaccounted for crude oil is the difference between the total supply and the total disposition of crude oil.

¹ Unaccounted for crude oil is a balancing item.

(\$) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - March 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 757,245	0	427,704	-8,626	21,758	10	1,176,201	17,640	4,230	898,563
Natural Gas Liquids and LRGs	144,966	42,390	20,447	27,756	0	0	43,819	4,024	187,716	76,427
Pentanes Plus	27,109	0	1,244	-588	0	0	14,490	182	13,093	7,619
Liquefied Petroleum Gases	117,857	42,390	19,203	28,344	0	0	29,329	3,842	174,623	68,808
Ethane	41,871	715	161	4,623	0	0	160	366	46,844	17,636
Propane	47,115	30,651	10,626	18,607	0	0	704	2,380	103,915	29,242
Normal Butane	15,747	9,986	5,060	3,944	0	0	16,651	914	17,173	12,604
Isobutane	13,124	1,038	3,356	1,170	0	0	11,814	182	6,692	9,326
Other Liquids	5,341	0	33,153	-8,938	0	0	51,233	0	-21,677	140,207
Other Hydrocarbons and Alcohol	5,341	0	0	-150	0	0	5,191	0	0	582
Unfinished Oils	0	0	29,240	-8,949	0	0	35,903	0	-15,612	102,134
Motor Gasoline Blending Components	0	0	3,913	86	0	0	10,064	0	-6,065	37,310
Aviation Gasoline Blending Components	0	0	0	75	0	0	75	0	0	181
Finished Petroleum Products	360	1,290,678	143,969	39,150	0	0	0	57,107	1,417,050	443,312
Finished Motor Gasoline	29	611,265	30,488	-5,054	0	0	0	1,339	635,389	193,948
Finished Leaded Motor Gasoline	26	120,771	921	4,269	0	0	0	516	125,471	48,926
Finished Unleaded Motor Gasoline	3	490,494	29,567	-9,323	0	0	0	822	509,919	145,022
Finished Aviation Gasoline	0	1,783	2	347	0	0	0	0	2,132	1,984
Naphtha-Type Jet Fuel	0	17,351	225	800	0	0	0	15	18,361	7,156
Kerosene-Type Jet Fuel	0	111,622	7,258	2,423	0	0	0	5,123	116,180	39,548
Kerosene	0	8,753	2,001	2,097	0	0	0	157	12,694	6,350
Distillate Fuel Oil	128	255,257	28,110	45,170	0	0	0	7,945	320,720	89,312
Residual Fuel Oil	0	89,471	64,717	3,280	0	0	0	17,661	139,807	44,057
Naphtha < 400 Deg. for Petro. Feed. Use	0	11,228	5,946	-68	0	0	0	372	16,734	2,404
Other Oils > 400 Deg. for Petro. Feed. Use	0	20,056	759	139	0	0	0	1,619	19,335	1,462
Special Naphthas	0	4,886	896	327	0	0	0	293	5,816	3,326
Lubricants	0	16,089	1,106	-555	0	0	0	1,901	14,739	13,872
Waxes	0	1,540	144	-6	0	0	0	112	1,566	789
Petroleum Coke	0	50,209	139	-445	0	0	0	20,367	29,536	7,205
Asphalt and Road Oil	0	25,616	2,033	-9,824	0	0	0	16	17,809	28,623
Still Gas	0	59,397	0	0	0	0	0	0	59,397	0
Miscellaneous Products	203	6,155	145	519	0	0	0	187	6,835	3,276
Total	907,912	1,333,068	625,273	49,342	21,758	10	1,271,253	78,771	1,587,319	1,558,509

¹ Unaccounted for crude oil is a balancing item.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, March 1988
(Thousand Barrels per Day)

Commodity	Field Production	Supply			Unaccounted For Crude Oil ¹	Disposition			
		Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)		Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,347	0	4,788	-212	419	(s)	13,072	218	52
Natural Gas Liquids and LRGs	1,624	482	176	20	0	0	431	38	1,833
Pentanes Plus	304	0	12	-25	0	0	166	2	123
Liquefied Petroleum Gases	1,320	482	165	45	0	0	266	36	1,710
Ethane	485	10	5	30	0	0	2	4	523
Propane	522	329	88	30	0	0	7	19	942
Normal Butane	169	124	43	-14	0	0	126	10	185
Isobutane	144	20	29	-1	0	0	130	2	60
Other Liquids	69	0	335	-108	0	0	490	0	-194
Other Hydrocarbons and Alcohol	69	0	0	-3	0	0	66	0	0
Unfinished Oils	0	0	293	-140	0	0	310	0	-157
Motor Gasoline Blending Components	0	0	43	33	0	0	112	0	-37
Aviation Gasoline Blending Components	0	0	0	2	0	0	2	0	0
Finished Petroleum Products	4	14,157	1,427	836	0	0	0	584	15,839
Finished Motor Gasoline	(s)	6,694	318	271	0	0	0	18	7,265
Finished Leaded Motor Gasoline	(s)	1,329	10	88	0	0	0	7	1,421
Finished Unleaded Motor Gasoline	(s)	5,365	308	183	0	0	0	11	5,845
Finished Aviation Gasoline	0	21	0	3	0	0	0	0	25
Naphtha-Type Jet Fuel	0	209	2	-14	0	0	0	(s)	197
Kerosene-Type Jet Fuel	0	1,243	95	-86	0	0	0	52	1,200
Kerosene	0	68	14	19	0	0	0	1	101
Distillate Fuel Oil	1	2,719	243	656	0	0	0	74	3,544
Residual Fuel Oil	0	944	610	45	0	0	0	165	1,434
Naphtha < 400 Deg. for Petro. Feed. Use	0	131	57	4	0	0	0	5	187
Other Oils > 400 Deg. for Petro. Feed. Use	0	241	24	9	0	0	0	19	255
Special Naphthas	0	55	14	6	0	0	0	4	70
Lubricants	0	189	13	(s)	0	0	0	24	178
Waxes	0	18	2	2	0	0	0	1	20
Petroleum Coke	0	551	2	-1	0	0	0	217	335
Asphalt and Road Oil	0	340	32	-96	0	0	0	(s)	276
Still Gas	0	663	0	0	0	0	0	0	663
Miscellaneous Products	2	72	2	17	0	0	0	2	90
Total	10,044	14,639	6,727	535	419	(s)	13,994	839	17,530

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - March 1988
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,321	0	4,700	-95	239	(s)	12,925	194	46
Natural Gas Liquids and LRGs	1,593	466	225	305	0	0	482	44	2,063
Pentanes Plus	298	0	14	-6	0	0	159	2	144
Liquefied Petroleum Gases	1,295	466	211	311	0	0	322	42	1,919
Ethane	460	8	2	51	0	0	2	4	515
Propane	518	337	117	204	0	0	8	26	1,142
Normal Butane	173	110	56	43	0	0	183	10	189
Isobutane	144	11	37	13	0	0	130	2	74
Other Liquids	59	0	364	-98	0	0	563	0	-238
Other Hydrocarbons and Alcohol	59	0	0	-2	0	0	57	0	0
Unfinished Oils	0	0	321	-98	0	0	395	0	-172
Motor Gasoline Blending Components	0	0	43	1	0	0	111	0	-67
Aviation Gasoline Blending Components	0	0	0	1	0	0	1	0	0
Finished Petroleum Products	4	14,183	1,582	430	0	0	0	628	15,572
Finished Motor Gasoline	(s)	6,717	335	-56	0	0	0	15	6,982
Finished Leaded Motor Gasoline	(s)	1,327	10	47	0	0	0	6	1,379
Finished Unleaded Motor Gasoline	(s)	5,390	325	-102	0	0	0	9	5,604
Finished Aviation Gasoline	0	20	(s)	4	0	0	0	0	23
Naphtha-Type Jet Fuel	0	191	2	9	0	0	0	56	202
Kerosene-Type Jet Fuel	0	1,227	80	27	0	0	0	1,277	1,277
Kerosene	0	96	22	23	0	0	0	2	139
Distillate Fuel Oil	1	2,805	309	496	0	0	0	87	3,524
Residual Fuel Oil	0	983	711	36	0	0	0	194	1,536
Naphtha < 400 Deg. for Petro. Feed. Use	0	123	65	-1	0	0	0	4	184
Other Oils > 400 Deg. for Petro. Feed. Use	0	220	8	2	0	0	0	18	212
Special Naphthas	0	54	10	4	0	0	0	3	64
Lubricants	0	177	12	-6	0	0	0	21	162
Waxes	0	17	2	(s)	0	0	0	1	17
Petroleum Coke	0	552	2	-5	0	0	0	224	325
Asphalt and Road Oil	0	281	22	-108	0	0	0	(s)	196
Still Gas	0	653	0	0	0	0	0	0	653
Miscellaneous Products	2	68	2	6	0	0	0	2	75
Total	9,977	14,649	6,871	542	239	(s)	13,970	866	17,443

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 6. PAD District I -- Supply and Disposition of Crude Oil and Petroleum Products, March 1988

(Thousand Barrels)											
Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 1,262	0	35,608	-909	1,671	1,745	2	39,375	0	0	14,845
Natural Gas Liquids and LRGs	872	1,806	1,349	510	0	2,896	0	118	33	7,281	2,930
Liquefied Petroleum Gases	752	1,806	1,053	510	0	2,896	0	101	33	6,882	2,883
Pentanes Plus	120	0	296	0	0	0	0	17	0	399	47
Other Liquids	70	0	4,397	774	0	629	0	6,199	0	-329	16,322
Other Hydrocarbons and Alcohol	70	0	0	-48	0	0	0	22	0	0	82
Unfinished Oils	0	0	3,097	407	0	327	0	4,734	0	-903	11,406
Motor Gasoline Blending Components	0	0	1,300	415	0	302	0	1,443	0	574	4,834
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	0	45,742	37,929	15,073	0	72,416	0	0	886	170,273	139,768
Finished Motor Gasoline	0	22,603	9,113	2,221	0	41,242	0	0	33	75,146	63,151
Finished Leaded Motor Gasoline	0	2,351	253	293	0	6,120	0	0	11	9,006	12,376
Finished Unleaded Motor Gasoline	0	20,252	8,860	1,928	0	35,122	0	0	21	66,141	50,775
Finished Aviation Gasoline	0	0	0	52	0	125	0	0	0	177	346
Naphtha-Type Jet Fuel	0	675	0	207	0	625	0	0	1	1,506	1,144
Kerosene-Type Jet Fuel	0	2,156	2,058	-518	0	10,586	0	0	129	14,153	9,419
Kerosene	0	307	443	9	0	643	0	0	13	1,389	2,582
Distillate Fuel Oil	0	9,441	7,148	11,054	0	17,594	0	0	21	45,216	33,077
Residual Fuel Oil	0	4,011	17,652	1,907	0	537	0	0	4	24,103	17,653
Petrochemical Feedstocks ²	0	113	202	138	0	-142	0	0	63	248	350
Special Naphthas	0	105	11	31	0	178	0	0	14	311	1,121
Lubricants	0	827	344	80	0	697	0	0	247	1,701	3,245
Waxes	0	87	22	13	0	3	0	0	6	119	62
Petroleum Coke	0	1,363	0	-113	0	0	0	0	318	932	657
Asphalt and Road Oil	0	1,811	882	-538	0	250	0	0	1	2,404	6,332
Still Gas	0	1,954	0	0	0	0	0	0	0	1,954	0
Miscellaneous Products	0	289	54	530	0	78	0	0	35	916	629
Total	2,204	47,548	79,282	15,448	1,671	77,686	2	45,692	919	177,226	173,865

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 7. PAD District II -- Supply and Disposition of Crude Oil and Petroleum Products, March 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 26,676	0	16,464	-2,801	3,057	46,103	0	88,802	697	0	73,703
Natural Gas Liquids and LRGs	9,321	2,606	2,753	479	0	1,459	0	3,957	514	12,147	21,675
Liquefied Petroleum Gases	7,917	2,606	2,715	363	0	997	0	2,729	451	11,418	19,260
Pentanes Plus	1,404	0	38	116	0	462	0	1,228	63	729	2,415
Other Liquids	662	0	21	-2,385	0	-178	0	-22	0	-1,858	24,781
Other Hydrocarbons and Alcohol	662	0	0	-28	0	0	0	634	0	0	150
Unfinished Oils	0	0	0	-2,074	0	0	0	-1,245	0	-829	16,598
Motor Gasoline Blending Components	0	0	21	-322	0	-178	0	550	0	-1,029	7,914
Aviation Gasoline Blending Components	0	0	0	39	0	0	0	39	0	0	119
Finished Petroleum Products	3	94,458	851	3,966	0	22,624	0	0	236	121,666	114,169
Finished Motor Gasoline	0	51,399	139	272	0	14,851	0	0	26	66,635	58,335
Finished Leaded Motor Gasoline	0	10,241	0	528	0	3,195	0	0	10	13,954	16,311
Finished Unleaded Motor Gasoline	0	41,158	139	-256	0	11,656	0	0	16	52,681	42,024
Finished Aviation Gasoline	0	51	0	64	0	53	0	0	0	168	484
Naphtha-Type Jet Fuel	0	568	63	-613	0	-46	0	0	0	-28	1,639
Kerosene-Type Jet Fuel	0	5,937	148	-992	0	2,449	0	0	(s)	7,542	8,457
Kerosene	0	415	0	67	0	-69	0	0	2	411	1,784
Distillate Fuel Oil	0	19,392	211	6,528	0	4,943	0	0	20	31,054	23,261
Residual Fuel Oil	0	2,032	166	198	0	-146	0	0	0	2,250	2,871
Petrochemical Feedstocks ²	0	1,706	12	101	0	178	0	0	66	1,931	409
Special Naphthas	0	422	78	83	0	132	0	0	20	695	549
Lubricants	0	874	12	72	0	282	0	0	41	1,199	2,247
Waxes	0	63	19	-8	0	0	0	0	1	73	107
Petroleum Coke	0	3,610	0	-248	0	0	0	0	56	3,306	1,749
Asphalt and Road Oil	0	3,584	0	-1,585	0	15	0	0	0	2,014	11,958
Still Gas	0	4,061	0	0	0	0	0	0	0	4,061	0
Miscellaneous Products	3	344	3	27	0	-18	0	0	3	356	319
Total	36,662	97,064	20,089	-741	3,057	70,008	0	92,737	1,447	131,955	234,328

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 8. PAD District III -- Supply and Disposition of Crude Oil and Petroleum Products, March 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks		
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil¹	Net Receipts	Crude Losses	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 115,215	0	91,081	-5,287	772	-16,235	3	185,543	0	0	716,664
Natural Gas Liquids and LRGs	33,393	8,571	623	-251	0	-2,550	0	7,813	367	31,606	49,380
Liquefied Petroleum Gases	27,891	8,571	620	643	0	-2,309	0	4,293	367	30,756	44,430
Pentanes Plus	5,502	0	3	-894	0	-241	0	3,520	0	850	4,950
Other Liquids	1,056	0	5,981	-2,722	0	-656	0	6,100	0	-2,441	63,924
Other Hydrocarbons and Alcohol	1,056	0	0	-25	0	0	0	1,031	0	0	307
Unfinished Oils	0	0	5,981	-2,765	0	-468	0	4,589	0	-1,841	49,218
Motor Gasoline Blending Components	0	0	0	57	0	-188	0	469	0	-600	14,360
Aviation Gasoline Blending Components	0	0	0	11	0	0	0	11	0	0	39
Finished Petroleum Products	106	200,522	3,937	4,634	0	-97,945	0	0	9,297	101,957	123,149
Finished Motor Gasoline	10	91,273	477	3,750	0	-57,595	0	0	159	37,756	46,395
Finished Leaded Motor Gasoline	9	16,732	0	1,458	0	-9,632	0	0	120	8,447	10,989
Finished Unleaded Motor Gasoline	1	74,541	477	2,292	0	-47,963	0	0	39	29,309	35,406
Finished Aviation Gasoline	0	454	0	-86	0	-187	0	0	0	181	688
Naphtha-Type Jet Fuel	0	3,460	0	-251	0	-859	0	0	(s)	2,350	2,619
Kerosene-Type Jet Fuel	0	19,219	141	-1,036	0	-13,795	0	0	1,168	3,360	14,310
Kerosene	0	1,348	0	359	0	-574	0	0	5	1,128	1,663
Distillate Fuel Oil	43	38,778	0	1,578	0	-22,885	0	0	1,356	16,158	21,532
Residual Fuel Oil	0	10,377	769	315	0	-391	0	0	2,036	9,034	14,320
Petrochemical Feedstocks²	0	9,139	2,050	190	0	-36	0	0	373	10,970	2,769
Special Naphthas	0	1,073	321	45	0	-310	0	0	83	1,046	1,528
Lubricants	0	3,431	44	-125	0	-1,016	0	0	296	2,038	6,623
Waxes	0	286	2	49	0	-3	0	0	28	306	420
Petroleum Coke	0	7,610	30	339	0	0	0	0	3,760	4,219	3,104
Asphalt and Road Oil	0	3,000	100	-453	0	-265	0	0	5	2,377	5,289
Still Gas	0	9,750	0	0	0	0	0	0	0	9,750	0
Miscellaneous Products	53	1,324	3	-40	0	-29	0	0	28	1,283	1,889
Total	149,770	209,093	101,622	-3,626	772	-117,386	3	199,456	9,664	131,122	953,117

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 9. PAD District IV -- Supply and Disposition of Crude Oil and Petroleum Products, March 1988
(Thousand Barrels)

(Thousand Barrels)											
Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock With-drawal (+) or Addition (-)	Unac-counted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 17,577	0	1,571	-462	2,685	-8,788	0	12,583	0	0	13,799
Natural Gas Liquids and LRGs	3,762	210	449	34	0	-1,805	0	740	38	1,872	1,077
Liquefied Petroleum Gases	2,929	210	418	27	0	-1,584	0	592	38	1,370	924
Pentanes Plus	833	0	31	7	0	-221	0	148	0	502	153
Other Liquids	6	0	0	740	0	0	0	589	0	157	4,093
Other Hydrocarbons and Alcohol	6	0	0	-1	0	0	0	5	0	0	8
Unfinished Oils	0	0	0	561	0	0	0	372	0	189	1,824
Motor Gasoline Blending Components	0	0	0	180	0	0	0	212	0	-32	2,261
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	2	13,932	144	715	0	-402	0	0	6	14,385	12,478
Finished Motor Gasoline	0	7,401	38	109	0	-453	0	0	(S)	7,095	5,332
Finished Leaded Motor Gasoline	0	2,698	1	23	0	-384	0	0	(S)	2,338	2,329
Finished Unleaded Motor Gasoline	0	4,703	37	86	0	-69	0	0	0	4,757	3,003
Finished Aviation Gasoline	0	19	0	4	0	9	0	0	0	32	65
Naphtha-Type Jet Fuel	0	305	0	42	0	-122	0	0	(S)	225	358
Kerosene-Type Jet Fuel	0	696	0	-22	0	479	0	0	0	1,153	875
Kerosene	0	-41	0	48	0	0	0	0	1	6	57
Distillate Fuel Oil	0	3,540	104	905	0	-315	0	0	0	4,234	2,267
Residual Fuel Oil	0	324	0	1	0	0	0	0	0	325	361
Petrochemical Feedstocks ²	0	16	0	-15	0	0	0	0	(S)	1	39
Special Naphthas	0	-1	1	1	0	0	0	0	1	(S)	7
Lubricants	0	-6	0	22	0	0	0	0	3	13	74
Waxes	0	19	1	21	0	0	0	0	0	41	70
Petroleum Coke	0	348	0	-8	0	0	0	0	0	340	39
Asphalt and Road Oil	0	702	0	-390	0	0	0	0	1	311	2,904
Still Gas	0	560	0	0	0	0	0	0	0	560	0
Miscellaneous Products	2	50	0	-3	0	0	0	0	(S)	49	30
Total	21,347	14,142	2,164	1,027	2,685	-10,995	0	13,912	45	16,413	31,447

1 Unaccounted for crude oil is a balancing item.

2 Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 10. PAD District V -- Supply and Disposition of Crude Oil and Petroleum Products, March 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 98,041	0	3,710	2,877	4,797	-22,825	1	78,943	6,047	1,609	79,552
Natural Gas Liquids and LRGs	3,000	1,744	295	-155	0	0	0	748	222	3,914	1,365
Liquefied Petroleum Gases	1,441	1,744	295	-160	0	0	0	524	222	2,574	1,311
Pentanes Plus	1,559	0	0	5	0	0	0	224	0	1,340	54
Other Liquids	352	0	0	245	0	205	0	2,336	0	-1,534	31,087
Other Hydrocarbons and Alcohol	352	0	0	16	0	0	0	368	0	0	35
Unfinished Oils	0	0	0	-477	0	141	0	1,146	0	-1,482	23,088
Motor Gasoline Blending Components	0	0	0	682	0	64	0	798	0	-52	7,941
Aviation Gasoline Blending Components	0	0	0	24	0	0	0	24	0	0	23
Finished Petroleum Products	0	84,216	1,362	1,519	0	3,307	0	0	7,667	82,737	53,748
Finished Motor Gasoline	0	34,848	92	2,039	0	1,955	0	0	338	38,596	20,735
Finished Leaded Motor Gasoline	0	9,185	43	427	0	701	0	0	65	10,291	6,921
Finished Unleaded Motor Gasoline	0	25,663	49	1,612	0	1,254	0	0	273	28,305	13,814
Finished Aviation Gasoline	0	142	0	62	0	0	0	0	0	204	401
Naphtha-Type Jet Fuel	0	1,465	3	190	0	402	0	0	0	2,060	1,396
Kerosene-Type Jet Fuel	0	10,524	594	-91	0	281	0	0	327	10,981	6,487
Kerosene	0	93	0	98	0	0	0	0	(s)	191	264
Distillate Fuel Oil	0	13,137	65	263	0	663	0	0	912	13,216	9,175
Residual Fuel Oil	0	12,517	310	-1,013	0	0	0	0	3,087	8,727	8,852
Petrochemical Feedstocks ²	0	546	250	-11	0	0	0	0	235	550	299
Special Naphthas	0	94	9	29	0	0	0	0	4	128	121
Lubricants	0	722	0	-39	0	37	0	0	160	560	1,683
Waxes	0	88	5	-14	0	0	0	0	10	69	130
Petroleum Coke	0	4,139	23	10	0	0	0	0	2,587	1,585	1,656
Asphalt and Road Oil	0	1,455	11	-2	0	0	0	0	2	1,462	2,140
Still Gas	0	4,235	0	0	0	0	0	0	0	4,235	0
Miscellaneous Products	0	211	0	-2	0	-31	0	0	5	173	409
Total	101,393	85,960	5,367	4,486	4,797	-19,313	1	82,027	13,936	86,726	165,752

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 11. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	January 1988		Year to Date	
	Total	Daily Average	Total	Daily Average
PAD District I, Total	E 1,184	E 38	E 1,184	E 38
Florida	712	23	712	23
New York	E 45	E 1	E 45	E 1
Pennsylvania	E 217	E 7	E 217	E 7
Virginia	E 1	E 0	E 1	E 0
West Virginia	205	7	205	7
Adjustment 1	4	(s)	4	(s)
PAD District II, Total	E 25,801	E 832	E 25,801	E 832
Illinois	2,050	66	2,050	66
Indiana	293	9	293	9
Kansas	4,750	153	4,750	153
Kentucky	400	13	400	13
Michigan	E 2,073	E 67	E 2,073	E 67
Missouri	9	(s)	9	(s)
Nebraska	476	15	476	15
North Dakota	3,356	108	3,356	108
Ohio	E 885	E 29	E 885	E 29
Oklahoma	10,958	353	10,958	353
South Dakota	147	5	147	5
Tennessee	E 48	E 2	E 48	E 2
Adjustment 1	356	11	356	11
PAD District III, Total	E 115,345	E 3,721	E 115,345	E 3,721
Alabama	1,827	59	1,827	59
Arkansas	E 1,128	E 36	E 1,128	E 36
Louisiana 2	14,368	463	14,368	463
Mississippi	2,344	76	2,344	76
New Mexico	5,966	192	5,966	192
Texas 2	63,632	2,053	63,632	2,053
Federal Offshore PAD District III	E 25,962	E 837	E 25,962	E 837
Adjustment 1	118	4	118	4
PAD District IV, Total	E 17,183	E 554	E 17,183	E 554
Colorado	E 2,461	E 79	E 2,461	E 79
Montana	2,023	65	2,023	65
Utah	2,924	94	2,924	94
Wyoming	9,948	321	9,948	321
Adjustment 1	-173	-6	-173	-6
PAD District V, Total	96,069	3,099	96,069	3,099
Alaska 2	61,969	1,999	61,969	1,999
South Alaska	1,339	43	1,339	43
North Slope	60,633	1,956	60,633	1,956
Adjustment for Alaska 1	-3	(s)	-3	(s)
Arizona	10	(s)	10	(s)
California 2	30,547	985	30,547	985
Nevada	261	8	261	8
Federal Offshore PAD District V	2,668	86	2,668	86
Adjustment for Arizona, California, and Nevada 1	614	20	614	20
U.S. Total²	E 255,582	E 8,245	E 255,582	E 8,245

¹ These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

² Includes the following current month offshore production (thousand barrels): Alaska: State - 4,721; California: State - 2,445; Louisiana: State - 2,127; Texas: State - 131; U.S. Total, including Federal offshore - 38,055.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: State Conservation Agencies and the U.S. Minerals Management Service.

Table 12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District, March 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky. *	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Natural Gas Liquids	256	616	872	767	463	8,091	9,321	19,028	2,641	7,300	581	3,843	33,393	3,762	3,000	50,348
Pentanes Plus	45	75	120	137	103	1,164	1,404	3,386	196	1,257	164	499	5,502	833	1,559	9,418
Liquefied Petroleum Gases	211	541	752	630	360	6,927	7,917	15,642	2,445	6,043	417	3,344	27,891	2,929	1,441	40,930
Ethane	56	181	237	130	0	2,318	2,448	6,375	1,030	2,634	76	1,432	11,547	804	2	15,038
Propane	99	245	344	302	221	3,032	3,555	5,891	1,211	2,025	184	1,232	10,543	1,364	375	16,181
Normal Butane	43	79	122	100	133	985	1,218	2,465	-1,142	702	111	449	2,585	532	780	5,237
Isobutane	13	36	49	98	6	592	696	911	1,346	682	46	231	3,216	229	284	4,474
Finished Petroleum Products	0	0	0	1	0	2	3	40	52	0	14	0	106	2	0	111
Finished Motor Gasoline	0	0	0	0	0	0	0	1	9	0	0	0	10	0	0	10
Finished Leaded Motor Gasoline	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	9
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	43	0	0	0	43	0	0	43
Miscellaneous Products	0	0	0	1	0	2	3	39	0	0	14	0	53	2	0	58
Total Production	256	616	872	768	463	8,093	9,324	19,068	2,693	7,300	595	3,843	33,499	3,764	3,000	50,459

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky.".
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, March 1988

Table 13. Refinery Input of Crude Oil and Petroleum Products by Refinery (Thousand Barrels, Except Where Noted)																	
Commodity	PAD District I			PAD District II			PAD District III					PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast	
Crude Oil (including lease condensate)	36,239	3,136	39,375	60,471	9,012	19,319	88,802	14,915	91,636	71,412	5,365	2,215	185,543	12,583	78,943	405,246	
Pentanes Plus	17	0	17	450	130	648	1,228	1,009	1,616	617	158	120	3,520	148	224	5,137	
Liquefied Petroleum Gases	85	16	101	1,906	218	605	2,729	517	1,298	2,305	114	59	4,293	592	524	8,239	
Ethane	0	0	0	0	0	0	0	0	0	71	0	0	71	0	0	71	
Propane	0	0	0	69	0	0	69	0	116	43	0	1	160	0	1	230	
Normal Butane	27	16	43	836	141	271	1,248	283	476	991	32	26	1,808	502	317	3,918	
Isobutane	58	0	58	1,001	77	334	1,412	234	706	1,200	82	32	2,254	90	206	4,020	
Other Liquids																	
Other Hydrocarbons and Alcohol	22	0	22	609	1	24	634	0	515	458	37	21	1,031	5	368	2,060	
Unfinished Oil (net)	4,482	252	4,734	-1,380	40	95	-1,245	181	6,149	-1,724	60	-77	4,589	372	1,146	9,596	
Motor Gasoline Blending Components (net)	1,492	-49	1,443	699	-133	-16	550	-60	-533	1,013	54	-5	469	212	798	3,472	
Aviation Gasoline Blending Components (net)	0	0	0	36	0	3	39	0	0	11	0	0	11	0	24	74	
Total Input to Refineries	42,337	3,355	45,692	62,791	9,268	20,678	92,737	16,562	100,681	74,092	5,788	2,333	199,456	13,912	82,027	433,824	
Crude Oil Distillation																	
Gross Input (daily average)	1,155	100	1,255	1,961	291	625	2,878	485	2,998	2,355	169	72	6,079	411	2,619	13,241	
Operable Capacity (daily average)	1,352	108	1,460	2,231	312	734	3,277	585	3,558	2,947	255	76	7,420	534	3,170	15,861	
Operating Ratio (percent) ¹	85.4	93.2	86.0	87.9	93.2	85.1	87.8	82.9	84.2	79.9	66.6	95.5	81.9	76.8	82.6	83.5	
Downstream Processing																	
Fresh Feed Input (daily average)	516	17	533	617	105	207	929	165	1,149	684	27	24	2,049	139	670	4,320	
Catalytic Cracking	64	3	67	115	0	4	119	0	261	150	0	0	410	5	346	948	
Catalytic Hydrocracking	74	0	74	153	53	64	271	9	177	361	13	0	560	17	470	1,392	
Cokers																	
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	95	62	93	90	199	56	94	79	100	128	139	76	110	83	115	105	
API Gravity, Weighted Average	30.66	39.84	31.40	35.56	30.62	37.60	35.50	38.50	33.48	30.64	34.11	40.56	32.87	35.20	25.01	31.80	
Operable Capacity (daily average)																	
Operating	1,352	108	1,460	2,231	312	734	3,277	585	3,558	2,947	255	76	7,420	534	3,170	15,861	
Idle	1,342	108	1,450	2,154	312	691	3,158	521	3,386	2,549	248	76	6,779	534	3,030	14,951	
	10	0	10	77	0	43	120	64	172	398	7	0	641	(s)	139	910	
Alaskan Crude Oil Receipts	936	0	936	1,382	0	0	1,382	0	6,630	7,867	0	0	14,497	0	43,243	60,058	

¹ Represents gross input divided by operable capacity.

(s) = Less than 500 barrels.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 14. Refinery Net Production of Petroleum Products by PAD District, March 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky. *	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.
Liquefied Refinery Gases	1,777	29	1,806	2,039	235	332	2,606	341	4,516	3,510	97	107	8,571	210	1,744
Ethane	85	0	85	0	0	0	0	-57	269	-4	0	0	208	0	6
Propane	1,399	29	1,428	2,005	229	445	2,679	431	2,615	1,746	80	64	4,936	175	975
Normal Butane	280	0	280	9	2	-113	-102	-281	1,569	1,691	17	38	3,034	52	572
Isobutane	13	0	13	25	4	0	29	248	63	77	0	5	393	-17	191
Finished Motor Gasoline	21,420	1,183	22,603	34,735	4,949	11,715	51,399	8,295	45,625	34,318	1,778	1,257	91,273	7,401	34,848
Finished Leaded Motor Gasoline	2,120	231	2,351	5,306	950	3,985	10,241	2,383	7,222	6,319	368	440	16,732	2,698	9,185
Finished Unleaded Motor Gasoline	19,300	952	20,252	29,429	3,999	7,730	41,158	5,912	38,403	27,999	1,410	817	74,541	4,703	25,663
Finished Aviation Gasoline	0	0	0	42	1	8	51	92	289	73	0	0	454	19	142
Naphtha-Type Jet Fuel	675	0	675	341	31	196	568	966	1,098	910	197	289	3,460	305	1,465
Kerosene-Type Jet Fuel	2,156	0	2,156	4,172	466	1,299	5,937	1,179	9,138	8,710	150	42	19,219	696	10,524
Kerosene	243	64	307	337	19	59	415	33	1,091	211	13	0	1,348	-41	93
Distillate Fuel Oil	8,379	1,062	9,441	12,328	2,330	4,734	19,392	3,562	18,532	14,661	1,531	492	38,778	3,540	13,137
Residual Fuel Oil	3,910	101	4,011	1,726	195	111	2,032	535	5,427	4,077	325	13	10,377	324	12,517
Naphtha < 400 Deg. for Petro. Feed. Use	106	0	106	672	0	115	787	111	2,628	164	26	7	2,936	16	217
Other Oils > 400 Deg. for Petro. Feed. Use	7	0	7	835	0	84	919	123	4,011	2,069	0	0	6,203	0	329
Special Naphthas	74	31	105	317	0	105	422	113	864	-34	130	0	1,073	-1	94
Lubricants	489	338	827	533	0	341	874	22	2,271	719	419	0	3,431	-6	722
Waxes	0	87	87	24	0	39	63	9	178	49	50	0	286	19	88
Petroleum Coke	1,339	24	1,363	2,339	573	698	3,610	309	3,234	3,909	140	18	7,610	348	4,139
Marketable	391	0	391	1,355	439	443	2,237	46	1,487	3,084	94	0	4,711	165	3,025
Catalyst	948	24	972	984	134	255	1,373	263	1,747	825	46	18	2,899	183	1,114
Asphalt and Road Oil	1,603	208	1,811	2,320	560	704	3,584	421	748	917	817	97	3,000	702	1,455
Still Gas	1,783	171	1,954	2,871	385	805	4,061	752	5,688	3,061	173	76	9,750	560	4,235
Miscellaneous Products	238	51	289	237	44	63	344	23	788	513	0	0	1,324	50	211
Fuel Use	2	0	2	0	0	0	0	2	0	43	0	0	45	0	0
Non-Fuel Use	236	51	287	237	44	63	344	21	788	470	0	0	1,279	50	211
Total Production	44,199	3,349	47,548	65,868	9,788	21,408	97,064	16,886	106,126	77,837	5,846	2,398	209,093	14,142	85,960
Processing Gain(-) or Loss(+) ¹	-1,862	6	-1,856	-3,077	-520	-730	-4,327	-324	-5,445	-3,745	-58	-65	-9,637	-230	-3,933
															453,807
															-19,983

¹ Represents the arithmetic difference between input and output.
* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District, 1 March 1988

Commodity	PAD District I			PAD District II				PAD District III			PAD District IV		United States
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Ark., Coast	New Mexico	Total	
Liquefied Refinery Gases	4.4	0.9	4.1	3.5	2.6	1.7	3.0	2.3	4.6	5.0	5.0	4.5	3.6
Finished Motor Gasoline ²	48.6	35.9	47.7	52.6	52.3	53.8	52.8	45.2	43.7	42.9	26.1	43.1	45.5
Finished Aviation Gasoline ³	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	1.7	0	1.5	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	5.3	0	4.9	7.1	5.1	6.7	6.8	7.8	9.3	12.5	2.8	10.1	9.3
Kerosene	6	1.9	7	6	2	3	5	2	1.1	3	2	7	5
Distillate Fuel Oil	20.6	31.3	21.4	20.9	25.7	24.4	22.1	23.6	19.0	21.0	28.2	20.4	20.3
Residual Fuel Oil	9.6	3.0	9.1	2.9	2.2	0.6	2.3	3.5	5.5	5.9	6.0	5.5	7.1
Naphtha < 400 Deg. for Petro. Feed. Use	3	0	2	1.1	0	0	0	0	0	0	0	0	0
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	1.4	0	0	1.0	0.8	4.1	3.0	0	3.3	1.0
Special Naphthas	0.2	9	0.2	0.5	0	0	0.5	0.7	0.9	0	0	0.6	0.4
Lubricants	1.2	10.0	1.9	0.9	0	1.8	1.0	1.1	2.3	1.0	7.7	1.8	1.8
Waxes	0	2.6	0.2	0	0	0	0.1	0	0	0	0	0	0
Petroleum Coke	3.3	7	3.1	4.0	6.3	3.6	4.1	2.0	3.3	5.6	2.6	4.0	4.1
Asphalt and Road Oil	3.9	6.1	4.1	3.9	6.2	3.6	4.1	2.8	8	1.3	15.1	4.5	2.5
Still Gas	4.4	5.0	4.4	4.9	4.3	4.1	4.6	5.0	5.8	4.4	3.2	5.1	5.0
Miscellaneous Products	6	1.5	7	4	5	3	4	2	8	7	0	7	5
Processing Gain(-) or Loss(+) ⁴	-4.6	2	-4.2	-5.2	-5.7	-3.8	-4.9	-2.1	-5.6	-5.4	-1.1	-5.1	-4.8

1 Based on crude oil input and net reruns of unfinished oils.

2 Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

3 Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

4 Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, March 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ^{1 2}	35,580	30,697	76,876	1,571	3,710	148,434	4,788
Natural Gas Liquids	1,349	2,753	623	449	295	5,469	176
Pentanes Plus	296	38	3	31	0	368	12
Liquefied Petroleum Gases	1,053	2,715	620	418	295	5,101	165
Ethane	10	68	61	0	3	142	5
Propane	728	1,608	133	212	43	2,725	88
Normal Butane	189	623	259	124	149	1,344	43
Isobutane	126	416	167	82	100	890	29
Other Liquids ¹	4,397	21	5,981	0	0	10,399	335
Unfinished Oils ¹	3,097	0	5,981	0	0	9,078	293
Naphthas and Lighter	241	0	1,319	0	0	1,560	50
Kerosene and Light Gas Oils	0	0	326	0	0	326	11
Heavy Gas Oils	2,377	0	1,231	0	0	3,608	116
Residuum	479	0	3,105	0	0	3,584	116
Motor Gasoline Blending Components	1,300	21	0	0	0	1,321	43
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	37,929	851	3,937	144	1,362	44,222	1,427
Finished Motor Gasoline	9,113	139	477	38	92	9,859	318
Finished Leaded Motor Gasoline	253	0	0	1	43	297	10
Finished Unleaded Motor Gasoline	8,860	139	477	37	49	9,562	308
Finished Aviation Gasoline	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	63	0	0	3	66	2
Kerosene-Type Jet Fuel	2,058	148	141	0	594	2,940	95
Bonded Aircraft Fuel	1,294	148	141	0	565	2,147	69
Other	764	0	0	0	29	793	26
Kerosene	443	0	0	0	0	443	14
Distillate Fuel Oil	7,148	211	0	104	65	7,528	243
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	7,148	211	0	104	65	7,528	243
Residual Fuel Oil	17,652	166	769	0	310	18,897	610
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	17,652	166	769	0	310	18,897	610
Naphtha < 400 Deg. for Petro. Feed. Use	202	12	1,505	0	36	1,755	57
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	545	0	214	759	24
Special Naphthas	11	78	321	1	9	420	14
Lubricants	344	12	44	0	0	400	13
Waxes	22	19	2	1	5	49	2
Petroleum Coke	0	0	30	0	23	53	2
Asphalt and Road Oil	882	0	100	0	11	993	32
Miscellaneous Products	54	3	3	0	0	60	2
Total Imports	79,254	34,322	87,417	2,164	5,367	208,524	6,727

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(S) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - March 1988

Commodity	Petroleum Administration for Defense Districts					Total (Daily Average)
	I	II	III	IV	V	
Crude Oil (including lease condensate) ^{1 2}	105,370	81,064	225,176	4,877	11,217	427,704
Natural Gas Liquids	5,475	9,781	2,505	1,751	935	20,447
Pentanes plus	765	108	218	153	0	1,244
Liquefied Petroleum Gases	4,710	9,673	2,287	1,598	935	19,203
Ethane	15	68	61	0	17	161
Propane	2,810	6,339	441	871	165	10,626
Normal Butane	1,131	1,960	1,081	436	452	5,060
Isobutane	754	1,307	703	291	301	3,356
Other Liquids ¹	13,459	21	19,112	0	561	33,153
Unfinished Oils	9,874	0	19,112	0	254	29,240
Naphthas and Lighter	269	0	3,833	0	254	4,356
Kerosene and Light Gas Oils	0	0	326	0	0	326
Heavy Gas Oils	8,451	0	4,041	0	0	12,492
Residuum	1,154	0	10,912	0	0	12,066
Motor Gasoline Blending Components	3,585	21	0	0	307	3,913
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	127,326	3,272	9,754	337	3,280	143,969
Finished Motor Gasoline	28,981	285	516	117	589	30,488
Finished Leaded Motor Gasoline	805	0	39	3	74	921
Finished Unleaded Motor Gasoline	28,176	285	477	114	515	29,567
Finished Aviation Gasoline	0	0	0	0	2	2
Naphtha-Type Jet Fuel	0	219	0	0	6	225
Kerosene-Type Jet Fuel	4,337	1,666	244	0	1,011	7,258
Bonded Aircraft Fuel	2,782	1,666	244	0	951	5,643
Other	1,555	0	0	0	60	1,615
Kerosene	1,285	0	716	0	0	2,001
Distillate Fuel Oil	27,198	506	2	216	188	28,110
Bonded Ships Bunkers	0	0	0	0	0	0
Other	27,198	506	2	216	188	28,110
Residual Fuel Oil	61,969	322	1,398	0	1,028	64,717
Bonded Ships Bunkers	0	0	0	0	0	0
Other	61,969	322	1,398	0	1,028	64,717
Naphtha < 400 Deg. for Petro. Feed. Use	451	51	5,371	0	73	5,946
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	545	0	214	759
Special Naphthas	38	133	700	1	24	896
Lubricants	968	34	67	0	37	1,106
Waxes	81	44	4	3	12	144
Petroleum Coke	20	0	50	0	69	139
Asphalt and Road Oil	1,866	2	138	0	27	2,033
Miscellaneous Products	132	10	3	0	0	145
Total Imports	251,630	94,138	256,547	6,965	15,993	625,273
						6,871

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ March 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	3,232	432	479	0	0	0	0	235	2,217	0	1,440	4,803	8,035	259
Iraq	7,688	0	0	0	0	0	0	0	0	0	0	0	7,688	248
Kuwait	1,405	0	0	0	0	0	0	0	0	0	0	0	1,405	45
Neutral Zone ⁴	416	0	0	0	0	0	0	0	0	0	0	0	416	13
Saudi Arabia	24,681	0	2,747	0	518	244	0	209	0	0	545	4,263	28,944	934
United Arab Emirates	0	0	0	0	0	0	0	195	0	0	0	195	195	6
Subtotal Arab OPEC	37,422	432	3,226	0	518	244	0	639	2,217	0	1,985	9,262	46,684	1,506
Other OPEC														
Ecuador	381	0	0	0	0	0	0	0	685	0	0	685	1,066	34
Gabon	335	0	0	0	0	0	0	0	0	0	0	0	335	11
Indonesia	3,375	0	0	0	0	0	0	234	0	0	214	448	3,823	123
Nigeria	16,149	0	0	0	0	0	0	256	373	0	0	629	16,778	541
Venezuela	15,947	186	2,013	0	595	1,058	0	1,401	2,426	0	878	8,557	24,504	790
Subtotal Other OPEC	36,187	186	2,013	0	595	1,058	0	1,657	3,718	0	1,092	10,319	46,506	1,500
Other														
Angola	4,881	0	0	0	0	0	0	0	375	0	0	375	5,256	170
Argentina	0	0	0	0	0	0	0	0	226	107	2	335	335	11
Australia	1,201	0	0	0	0	0	0	0	182	0	0	182	1,383	45
Bahama Islands	0	0	0	0	0	0	0	3	1,386	0	0	1,389	1,389	45
Belgium	0	0	0	0	251	0	0	0	272	0	3	526	526	17
Brazil	0	47	0	0	1,234	0	219	0	892	1	0	2,393	2,393	77
Cameroon	570	0	0	0	0	0	0	0	89	0	0	89	659	21
Canada	20,564	3,809	352	21	1,594	668	34	2,392	877	127	212	10,086	30,650	989
China, People's Republic	1,516	0	0	0	0	0	0	0	0	0	44	44	1,560	50
China, Taiwan	0	9	0	0	0	0	0	0	0	0	0	9	9	(s)
Colombia	4,968	0	0	0	0	0	0	0	1,298	0	0	1,298	6,266	202
Congo	1,539	0	0	0	0	0	0	0	0	0	0	0	1,539	50
Egypt	673	0	0	0	0	0	0	0	0	0	0	0	674	22
France	0	34	0	0	535	0	0	212	171	0	1	740	740	24
Germany, DR (E)	0	0	0	0	0	0	0	0	0	0	0	0	212	7
Germany, FD (W)	0	4	0	0	0	0	0	0	0	0	2	6	6	(s)
Ghana	0	0	0	0	0	0	0	0	146	0	0	146	146	5
Greece	0	0	0	0	0	0	0	0	870	0	0	870	870	28
Guatemala	200	0	0	0	0	0	0	0	0	0	0	0	200	6
Hungary	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
India	0	0	299	0	0	0	0	0	0	166	0	465	465	15
Israel	0	0	1,032	0	1,587	0	0	0	0	15	0	15	15	(s)
Italy	614	4	0	0	0	0	0	21	40	0	2,659	3,273	3,273	106
Japan	0	1	0	0	0	0	0	0	0	4	73	102	102	3
Korea, Republic	21,969	574	0	0	0	293	0	0	0	0	268	1,135	23,104	745
Mexico	0	0	0	0	0	0	0	0	0	0	0	924	924	30
Netherlands Antilles	0	1	58	0	763	0	0	643	924	0	24	1,765	1,765	57
Netherlands	0	0	0	0	0	0	0	0	276	0	56	56	56	2
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	1,050	0	549	1,050	1,050	34
Puerto Rico	0	0	120	0	0	0	0	0	0	0	0	669	669	22
Romania	0	0	0	1,061	1,160	0	0	0	0	0	0	2,221	2,221	72

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Singapore	0	0	0	0	0	25	0	0	310	0	0	335	335	11
South Africa	0	0	0	0	0	0	0	0	0	0	17	17	17	1
Spain	0	0	190	0	513	394	0	0	215	0	71	1,383	1,383	45
Switzerland	0	(s)	0	0	0	0	0	0	0	0	1	1	1	(s)
Trinidad and Tobago	2,352	0	0	0	0	0	0	0	407	0	0	407	2,759	89
Turkey	0	0	358	0	0	0	0	0	0	0	0	358	358	12
United Kingdom	12,871	1	305	0	238	0	0	413	429	0	35	1,421	14,292	461
U.S.R.	0	0	0	0	0	0	0	1,242	0	0	0	1,242	1,242	40
Virgin Islands	0	0	1,125	239	871	324	190	306	2,527	0	0	5,582	5,582	180
Zaire	907	0	0	0	0	0	0	0	0	0	0	0	907	29
Subtotal Other	74,825	4,483	3,839	1,321	8,746	1,704	443	5,232	12,962	420	1,360	40,510	115,335	3,720
Total Imports	148,434	5,101	9,078	1,321	9,859	3,006	443	7,528	18,897	420	4,437	60,090	208,524	6,727
PAD District I														
Arab OPEC														
Algeria	0	432	479	0	0	0	0	235	2,042	0	0	3,188	3,188	103
Saudi Arabia	4,085	0	0	0	518	93	0	209	0	0	0	820	4,905	158
United Arab Emirates	0	0	0	0	0	0	0	195	0	0	0	195	195	6
Subtotal Arab OPEC	4,085	432	479	0	518	93	0	639	2,042	0	0	4,203	8,288	267
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	685	0	0	685	685	22
Gabon	335	0	0	0	0	0	0	0	0	0	0	0	335	11
Indonesia	0	0	0	0	0	0	0	0	234	0	0	234	234	8
Nigeria	9,545	0	0	0	0	0	0	256	373	0	0	629	10,174	328
Venezuela	3,438	186	593	0	118	751	0	1,401	2,426	0	789	6,264	9,702	313
Subtotal Other OPEC	13,318	186	593	0	118	751	0	1,657	3,718	0	789	7,812	21,130	682
Other														
Angola	3,085	0	0	0	0	0	0	0	375	0	0	375	3,460	112
Argentina	0	0	0	0	0	0	0	0	226	0	0	226	226	7
Australia	0	0	0	0	0	0	0	0	182	0	0	182	182	6
Bahama Islands	0	0	0	0	0	0	0	3	1,386	0	0	1,389	1,389	45
Belgium	0	0	0	0	251	0	0	0	272	0	0	523	523	17
Brazil	0	0	0	0	1,234	0	219	0	892	0	0	2,345	2,345	76
Cameroon	570	0	0	0	0	0	0	0	89	0	0	89	659	21
Canada	1,683	419	338	0	1,325	489	34	2,033	360	7	80	5,085	6,768	218
China, People's Republic	1,516	0	0	0	0	0	0	0	0	0	0	0	1,516	49
China, Taiwan	0	9	0	0	0	0	0	0	1,298	0	0	9	9	(s)
Colombia	1,648	0	0	0	0	0	0	0	0	0	1	1	2,946	95
Egypt	673	0	0	0	0	0	0	0	674	0	0	674	674	22
France	0	0	0	0	535	0	0	0	171	0	0	706	706	23
Germany, DR (E)	0	0	0	0	0	0	0	212	0	0	0	212	212	7
Germany, FR (W)	0	4	0	0	0	0	0	0	0	0	2	6	6	(s)
Ghana	0	0	0	0	0	0	0	0	146	0	0	146	146	5
Greece	0	0	0	0	0	0	0	0	870	0	0	870	870	28

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, ¹ March 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Hungary	0	0	0	0	0	0	0	0	0	0	2	2	2	(s) 87
Italy	614	0	442	0	1,587	0	0	0	40	0	0	2,069	2,683	(s) 7
Japan	0	(s)	0	0	0	0	0	0	0	4	3	7	7	(s) 1
Korea, Republic	0	0	0	0	0	0	0	0	0	0	0	1	1	(s) 95
Mexico	2,616	0	0	0	0	93	0	0	0	0	240	333	2,949	924
Netherlands Antilles	0	0	0	0	0	0	0	0	924	0	0	924	924	30
Netherlands	0	1	0	0	763	0	0	643	276	0	14	1,697	1,697	55
Norway	0	0	0	0	0	0	0	0	0	0	56	56	56	2
Peru	0	0	0	0	0	0	0	0	1,050	0	0	1,050	1,050	34
Puerto Rico	0	0	120	0	0	0	0	0	0	0	518	638	638	21
Romania	0	0	0	1,061	1,160	0	0	0	0	0	0	2,221	2,221	72
South Africa	0	0	0	0	0	0	0	0	0	0	8	8	8	(s) 36
Spain	0	0	0	0	513	308	0	0	215	0	71	1,107	1,107	(s) 1
Switzerland	0	(s)	0	0	0	0	0	0	0	0	1	1	1	(s) 28
Trinidad and Tobago	460	0	0	0	0	0	0	0	407	0	0	407	867	190
United Kingdom	5,026	(s)	0	0	238	0	0	413	186	0	15	852	5,878	40
U.S.S.R.	0	0	0	0	0	0	0	1,242	0	0	0	1,242	1,242	180
Virgin Islands	0	0	1,125	239	871	324	190	306	2,527	0	0	5,582	5,582	9
Zaire	286	0	0	0	0	0	0	0	0	0	0	0	0	1,608
Subtotal Other	18,177	434	2,025	1,300	8,477	1,213	443	4,852	11,892	11	1,011	31,659	49,836	
Total Imports	35,580	1,053	3,097	1,300	9,113	2,058	443	7,148	17,652	11	1,800	43,674	79,254	2,557
PAD District II														
Arab OPEC														
Algeria	447	0	0	0	0	0	0	0	0	0	0	0	447	14
Iraq	2,796	0	0	0	0	0	0	0	0	0	0	0	2,796	90
Kuwait	500	0	0	0	0	0	0	0	0	0	0	0	500	16
Saudi Arabia	3,869	0	0	0	0	0	0	0	0	0	0	0	3,869	125
Subtotal Arab OPEC	7,612	0	0	0	0	0	0	0	0	0	0	0	7,612	246
Other OPEC														
Nigeria	2,872	0	0	0	0	0	0	0	0	0	0	0	2,872	93
Venezuela	0	0	0	0	0	102	0	0	0	0	0	102	102	3
Subtotal Other OPEC	2,872	0	0	0	0	102	0	0	0	0	0	102	2,974	96
Other														
Canada	16,492	2,680	0	21	139	63	0	211	166	78	76	3,434	19,926	643
France	0	34	0	0	0	0	0	0	0	0	0	34	34	1
Mexico	2,393	0	0	0	0	46	0	0	0	0	0	46	2,439	79
South Africa	0	0	0	0	0	0	0	0	0	0	8	8	8	(s) 43
United Kingdom	1,328	1	0	0	0	0	0	0	0	0	0	1	1,329	766
Subtotal Other	20,213	2,715	0	21	139	109	0	211	166	78	84	3,523	23,736	
Total Imports	30,697	2,715	0	21	139	211	0	211	166	78	84	3,625	34,322	1,107

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, ¹ March 1988

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District III														
Arab OPEC														
Algeria	2,785	0	0	0	0	0	0	0	175	0	1,440	1,615	4,400	142
Iraq	4,892	0	0	0	0	0	0	0	0	0	0	0	4,892	158
Kuwait	905	0	0	0	0	0	0	0	0	0	0	0	905	29
Neutral Zone ⁴	416	0	0	0	0	0	0	0	0	0	0	0	416	13
Saudi Arabia	16,727	0	2,747	0	0	0	0	0	0	0	545	3,292	20,019	646
Subtotal Arab OPEC	25,725	0	2,747	0	0	0	0	0	175	0	1,985	4,907	30,632	988
Other OPEC														
Ecuador	381	0	0	0	0	0	0	0	0	0	0	0	381	12
Indonesia	1,086	0	0	0	0	0	0	0	0	0	0	0	1,086	35
Nigeria	3,732	0	0	0	0	0	0	0	0	0	0	0	3,732	120
Venezuela	12,509	0	1,420	0	477	0	0	0	0	0	89	1,986	14,495	468
Subtotal Other OPEC	17,708	0	1,420	0	477	0	0	0	0	0	89	1,986	19,694	635
Other														
Angola	1,796	0	0	0	0	0	0	0	0	0	0	0	1,796	58
Argentina	0	0	0	0	0	0	0	0	0	107	2	109	109	4
Australia	75	0	0	0	0	0	0	0	0	0	0	0	75	2
Belgium	0	0	0	0	0	0	0	0	0	0	3	3	3	(s)
Brazil	0	47	0	0	0	0	0	0	0	1	0	48	48	2
Canada	523	0	14	0	0	0	0	0	351	32	0	397	920	30
China, People's Republic	0	0	0	0	0	0	0	0	0	0	44	44	44	1
Colombia	3,320	0	0	0	0	0	0	0	0	0	0	0	3,320	107
Congo	1,539	0	0	0	0	0	0	0	0	0	0	0	1,539	50
Guatemala	200	0	0	0	0	0	0	0	0	166	0	465	465	6
India	0	0	299	0	0	0	0	0	0	15	0	15	15	15
Israel	0	0	590	0	0	0	0	0	0	0	0	590	590	19
Italy	0	0	0	0	0	0	0	0	0	0	34	34	34	1
Japan	16,960	574	0	0	0	54	0	0	0	0	14	642	17,602	568
Mexico	0	0	58	0	0	0	0	0	0	0	10	68	68	2
Netherlands	0	0	0	0	0	0	0	0	0	0	31	31	31	1
Puerto Rico	0	0	190	0	0	86	0	0	0	0	0	276	276	9
Spain	1,892	0	0	0	0	0	0	0	0	0	0	0	1,892	61
Trinidad and Tobago	0	0	358	0	0	0	0	0	0	0	0	358	358	12
Turkey	0	0	305	0	0	0	0	0	243	0	20	568	7,085	229
United Kingdom	6,517	0	0	0	0	0	0	0	0	0	0	0	621	20
Zaire	621	0	0	0	0	0	0	0	594	321	158	3,648	37,091	1,196
Subtotal Other	33,443	620	1,814	0	0	141	0	0	0	0	2,232	10,541	87,417	2,820
Total Imports	76,876	620	5,981	0	477	141	0	0	769	321	2,232	10,541	87,417	2,820
PAD District IV														
Other														
Canada	1,571	418	0	0	38	0	0	0	104	0	32	593	2,164	70
Subtotal Other	1,571	418	0	0	38	0	0	0	104	0	32	593	2,164	70
Total Imports	1,571	418	0	0	38	0	0	0	104	0	32	593	2,164	70

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ March 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Products ³	Total Products	Total Petroleum	Total (Daily Average)
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	0	151	0	0	0	0	0	151	151	5
Subtotal Arab OPEC	0	0	0	0	0	151	0	0	0	0	0	151	151	5
Other OPEC														
Indonesia	2,289	0	0	0	0	0	0	0	0	0	214	214	2,503	81
Venezuela	0	0	0	0	0	205	0	0	0	0	0	205	205	7
Subtotal Other OPEC	2,289	0	0	0	0	205	0	0	0	0	214	419	2,708	87
Other														
Australia	1,126	0	0	0	0	0	0	0	0	0	0	0	1,126	36
Canada	295	291	0	0	92	116	0	44	0	9	24	576	871	28
Japan	0	4	0	0	0	0	0	21	0	0	36	61	61	2
Mexico	0	0	0	0	0	100	0	0	0	0	14	114	114	4
Singapore	0	0	0	0	0	25	0	0	310	0	0	335	335	11
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Subtotal Other	1,421	295	0	0	92	241	0	65	310	9	75	1,087	2,508	81
Total Imports	3,710	295	0	0	92	597	0	65	310	9	289	1,657	5,367	173

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - March 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphtas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	11,946	2,230	1,156	0	0	144	0	1,225	6,799	0	4,599	16,153	28,099	309
Iraq	12,992	0	0	0	0	0	0	0	0	0	0	0	12,992	143
Kuwait	9,943	0	1,526	0	0	0	0	0	0	0	0	1,526	11,469	126
Neutral Zone ⁴	R 3,039	0	0	0	0	0	0	0	0	0	0	0	R 3,039	R 33
Saudi Arabia	R 80,325	297	6,534	0	1,778	456	0	1,882	0	0	660	11,607	R 91,932	R 1,010
United Arab Emirates	3,209	0	0	0	0	592	0	342	0	0	213	1,147	4,356	48
Subtotal Arab OPEC	121,454	2,527	9,216	0	1,778	1,192	0	3,449	6,799	0	5,472	30,433	151,887	1,669
Other OPEC														
Ecuador	2,727	0	0	0	0	0	0	0	1,850	0	0	1,850	4,577	50
Gabon	1,781	0	0	0	0	0	0	0	0	0	0	0	1,781	20
Indonesia	11,332	0	1,176	0	0	0	0	0	958	0	214	2,348	13,680	150
Iran	5,25	0	0	0	0	0	0	0	0	0	0	0	5,25	5 (s)
Nigeria	42,184	0	318	0	0	0	0	256	1,112	0	0	1,686	43,870	482
Venezuela	39,134	1,337	5,473	159	1,310	2,523	0	6,684	13,724	1	1,545	32,756	71,890	790
Subtotal Other OPEC	97,183	1,337	6,967	159	1,310	2,523	0	6,940	17,644	1	1,759	38,640	135,823	1,493
Other														
Angola	14,502	0	0	0	0	0	0	0	1,085	0	0	1,085	15,587	171
Argentina	0	0	0	0	223	0	0	0	1,006	154	0	17	1,400	15
Australia	5,690	0	0	0	0	0	0	0	182	0	80	262	5,952	65
Bahama Islands	0	0	0	0	0	0	0	8	4,599	0	0	4,607	4,607	51
Bahrain	0	0	275	0	0	0	0	0	0	0	0	0	275	3
Belgium	0	0	903	0	1,125	0	0	0	617	0	5	2,650	2,650	29
Benin	337	0	0	0	0	0	0	0	0	0	0	0	337	4
Brazil	0	213	15	0	4,213	0	219	1,065	1,936	1	15	7,677	7,677	84
Brunei	150	0	0	0	0	0	0	0	0	0	0	0	150	2
Cameroon	3,724	0	0	0	0	0	0	0	608	0	0	608	4,332	48
Canada	59,951	13,523	718	21	3,918	1,331	128	5,720	2,705	288	744	29,096	89,047	979
China, People's Republic	7,954	0	0	307	0	0	0	0	0	0	60	367	8,321	91
China, Taiwan	0	14	0	0	0	0	0	0	0	0	9	23	23	(s)
Colombia	9,223	0	0	0	0	0	0	0	3,816	0	0	3,816	13,039	143
Congo	1,539	0	0	0	0	0	0	0	271	0	0	271	1,810	20
Egypt	2,149	0	0	0	0	0	0	0	0	0	5	5	2,154	24
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	3
France	0	34	0	0	1,006	0	0	0	171	0	66	1,277	1,277	14
Germany, DR (E)	0	0	0	0	0	0	0	426	0	0	0	426	426	5
Germany, FR (W)	0	8	0	0	310	0	0	0	0	0	7	325	325	4
Ghana	0	0	0	0	508	0	0	0	146	0	0	146	146	2
Greece	0	0	0	0	0	0	0	134	870	0	0	1,512	1,512	17
Guatemala	200	0	0	0	0	0	0	0	0	0	0	0	200	2
Hungary	0	0	0	0	0	0	0	0	0	0	3	3	3	(s)
India	0	0	1,123	0	0	0	0	0	0	421	0	1,544	1,544	17
Israel	0	0	0	0	0	0	0	0	0	15	0	15	15	(s)
Italy	892	1	2,123	0	3,684	0	0	444	599	4	10	6,865	7,757	85
Japan	0	17	0	0	0	0	0	21	0	4	162	204	204	2
Korea, Republic	0	2	0	0	0	0	0	0	0	0	37	39	39	(s)
Libera	0	0	0	0	0	0	0	210	0	0	0	210	210	2
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	5
Mexico	62,091	1,523	0	0	0	1,022	0	739	1,063	0	724	5,071	67,162	738

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - March 1988 (continued)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Netherlands Antilles	0	0	0	0	230	0	0	0	2,539	0	0	2,769	2,769	30
Netherlands	0	2	58	0	3,780	0	0	1,182	892	8	134	6,056	6,056	67
Norway	2,717	0	259	0	0	0	0	0	61	0	108	428	3,145	35
Oman	0	0	171	0	0	0	0	0	0	0	0	171	171	2
Peru	0	0	0	0	0	0	0	0	3,515	0	0	3,515	3,515	39
Puerto Rico	0	0	520	0	0	0	0	0	0	0	1,501	2,021	2,021	22
Romania	0	0	0	2,742	1,529	0	0	444	0	0	0	4,715	4,715	52
Singapore	0	0	0	0	0	25	0	0	1,028	0	0	1,053	1,053	12
South Africa	0	0	0	0	0	0	0	0	0	0	27	27	27	(s)
Spain	0	0	839	0	1,600	394	0	0	399	0	377	3,609	3,609	40
Sweden	0	1	0	0	0	0	0	372	330	0	110	813	813	9
Switzerland	0	(s)	0	0	0	0	0	0	0	0	2	2	2	(s)
Trinidad and Tobago	6,522	0	0	0	138	230	115	201	1,485	0	0	2,169	8,691	96
Turkey	0	0	396	0	0	0	0	0	0	0	0	396	396	4
United Kingdom	27,642	2	801	0	2,588	0	0	598	1,327	0	84	5,400	33,042	363
U.S.S.R.	0	0	456	0	0	0	0	2,855	27	0	0	3,338	3,338	37
Virgin Islands	0	0	4,400	684	2,256	766	1,539	3,302	8,997	0	0	21,944	21,944	241
Zaire	3,360	0	0	0	0	0	0	0	0	0	0	0	3,360	37
Subtotal Other	209,067	15,339	13,057	3,754	27,400	3,768	2,001	17,721	40,274	895	4,287	128,496	337,563	3,709
Total Imports	427,704	19,203	29,240	3,913	30,488	7,483	2,001	28,110	64,717	896	11,518	197,569	625,273	6,871
PAD District I														
Arab OPEC														
Algeria	0	2,198	1,154	0	0	144	0	1,225	6,624	0	0	11,346	11,346	125
Neutral Zone ⁴	R 650	0	0	0	0	0	0	0	0	0	0	0	R 650	R 7
Saudi Arabia	R 11,705	297	0	0	1,522	291	0	1,882	0	0	0	3,993	R 15,698	R 173
United Arab Emirates	769	0	0	0	0	0	0	342	0	0	0	342	1,111	12
Subtotal Arab OPEC	13,124	2,496	1,154	0	1,522	436	0	3,449	6,624	0	0	15,680	28,804	317
Other OPEC														
Ecuador	1,939	0	0	0	0	0	0	0	1,850	0	0	1,850	3,789	42
Gabon	1,418	0	0	0	0	0	0	0	0	0	0	0	1,418	16
Indonesia	0	0	0	0	0	0	0	0	958	0	0	958	958	11
Nigeria	24,579	0	0	0	0	0	0	256	1,112	0	0	1,368	25,947	285
Venezuela	7,904	816	1,488	159	794	1,594	0	6,682	13,724	1	1,432	26,691	34,595	380
Subtotal Other OPEC	35,840	816	1,488	159	794	1,594	0	6,938	17,644	1	1,432	30,867	66,707	733
Other														
Angola	10,342	0	0	0	0	0	0	0	1,085	0	0	1,085	11,427	126
Argentina	0	0	0	0	223	0	0	0	1,006	11	0	1,240	1,240	14
Australia	551	0	0	0	0	0	0	0	182	0	80	262	813	9
Bahama Islands	0	0	0	0	0	0	0	8	4,372	0	0	4,380	4,380	48
Belgium	0	0	329	0	1,125	0	0	0	617	0	0	2,071	2,071	23
Benin	337	0	0	0	0	0	0	0	0	0	0	0	337	4
Brazil	0	0	15	0	4,213	0	219	1,065	1,936	0	15	7,463	7,463	82
Cameroon	3,006	0	0	0	0	0	0	0	608	0	0	608	3,614	40

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - March 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Canada	4,976	1,374	347	0	3,183	789	128	4,831	2,032	18	205	12,908	17,884	197
China, People's Republic	4,292	0	0	0	0	0	0	0	0	0	16	16	4,308	47
China, Taiwan	0	9	0	0	0	0	0	0	0	0	0	9	9	(s)
Colombia	4,044	0	0	0	0	0	0	0	3,816	0	0	3,816	7,860	86
Congo	0	0	0	0	0	0	0	0	271	0	0	271	271	3
Egypt	2,149	0	0	0	0	0	0	0	0	0	3	3	2,152	24
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	3
France	0	(s)	0	0	1,006	0	0	0	171	0	15	1,192	1,192	13
Germany, DR (E)	0	0	0	0	0	0	0	426	0	0	0	426	426	5
Germany, FD (W)	0	8	0	0	310	0	0	0	0	0	7	325	325	4
Ghana	0	0	0	0	0	0	0	0	146	0	0	146	146	2
Greece	0	0	0	0	508	0	0	134	870	0	0	1,512	1,512	17
Hungary	0	0	0	0	0	0	0	0	0	0	3	3	3	(s)
Italy	892	1	1,188	0	3,684	0	0	444	599	4	10	5,930	6,822	75
Japan	0	1	0	0	0	0	0	0	0	4	38	43	43	(s)
Korea, Republic	0	2	0	0	0	0	0	0	0	0	0	2	2	2
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	80
Mexico	4,593	0	0	0	0	214	0	739	1,033	0	657	2,643	7,236	30
Netherlands Antilles	0	0	0	0	230	0	0	0	2,539	0	0	2,769	2,769	65
Netherlands	0	2	0	0	3,780	0	0	1,182	892	0	14	5,870	5,870	26
Norway	2,216	0	0	0	0	0	0	0	61	0	108	169	2,385	39
Peru	0	0	0	0	0	0	0	0	3,515	0	0	3,515	3,515	20
Puerto Rico	0	0	520	0	0	0	0	0	0	0	1,258	1,778	1,778	52
Romania	0	0	0	2,742	1,529	0	0	444	0	0	0	4,715	4,715	(s)
South Africa	0	0	429	0	1,600	308	0	0	0	0	11	11	11	34
Spain	0	0	0	0	0	0	0	372	330	0	377	3,113	3,113	8
Sweden	0	1	0	0	0	0	0	0	0	0	0	2	2	(s)
Switzerland	0	(s)	0	0	0	0	0	0	0	0	2	2	2	39
Trinidad and Tobago	1,362	0	0	0	138	230	115	201	1,485	0	0	2,169	3,531	218
United Kingdom	15,927	(s)	4	0	2,588	0	0	598	712	0	32	3,934	19,861	32
U.S.S.R.	0	0	0	0	0	0	0	2,855	27	0	0	2,882	2,882	233
Virgin Islands	0	0	4,400	684	2,256	766	823	3,302	8,997	0	0	21,228	21,228	19
Zaire	1,719	0	0	0	0	0	0	0	0	0	0	0	1,719	1,716
Subtotal Other	56,406	1,398	7,232	3,426	26,665	2,307	1,285	16,811	37,701	37	2,851	99,713	156,119	
Total Imports	105,370	4,710	9,874	3,585	28,981	4,337	1,285	27,198	61,969	38	4,283	146,260	251,630	2,765
PAD District II														
Arab OPEC														
Algeria	1,679	0	0	0	0	0	0	0	0	0	0	0	1,679	18
Iraq	3,207	0	0	0	0	0	0	0	0	0	0	0	3,207	35
Kuwait	500	0	0	0	0	0	0	0	0	0	0	0	500	5
Saudi Arabia	10,446	0	0	0	0	0	0	0	0	0	0	0	10,446	115
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	8
Subtotal Arab OPEC	16,009	0	0	0	0	592	0	0	0	0	0	592	16,601	182

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, January - March 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District II (continued)														
Other OPEC														
Ecuador	407	0	0	0	0	0	0	0	0	0	0	0	407	4
Nigeria	10,679	0	0	0	0	0	0	0	0	0	0	0	10,679	117
Venezuela	209	0	0	0	0	524	0	0	0	0	0	524	733	8
Subtotal Other OPEC	11,295	0	0	0	0	524	0	0	0	0	0	524	11,819	130
Other														
Canada	47,160	9,637	0	21	285	219	0	506	322	133	234	11,357	58,517	643
France	0	34	0	0	0	0	0	0	0	0	0	34	34	(s)
Mexico	5,096	0	0	0	0	550	0	0	0	0	0	550	5,646	62
South Africa	0	0	0	0	0	0	0	0	0	0	15	15	15	(s)
Trinidad and Tobago	176	0	0	0	0	0	0	0	0	0	0	0	176	2
United Kingdom	1,328	2	0	0	0	0	0	0	0	0	0	2	1,330	15
Subtotal Other	53,760	9,673	0	21	285	769	0	506	322	133	249	11,958	65,718	722
Total Imports	81,064	9,673	0	21	285	1,885	0	506	322	133	249	13,074	94,138	1,034
PAD District III														
Arab OPEC														
Algeria	10,267	31	2	0	0	0	0	0	175	0	4,599	4,807	15,074	166
Iraq	9,785	0	0	0	0	0	0	0	0	0	0	0	9,785	108
Kuwait	9,443	0	1,526	0	0	0	0	0	0	0	0	1,526	10,969	121
Neutral Zone ⁴	R 2,389	0	0	0	0	0	0	0	0	0	0	0	R 2,389	R 26
Saudi Arabia	R 58,174	0	6,534	0	0	0	0	0	0	0	660	7,194	R 65,368	R 718
United Arab Emirates	2,263	0	0	0	0	0	0	0	0	0	213	213	2,476	27
Subtotal Arab OPEC	92,321	31	8,062	0	0	0	0	0	175	0	5,472	13,740	106,061	1,166
Other OPEC														
Ecuador	381	0	0	0	0	0	0	0	0	0	0	0	381	4
Gabon	363	0	0	0	0	0	0	0	0	0	0	0	363	4
Indonesia	3,650	0	922	0	0	0	0	0	0	0	0	922	4,572	50
Iran	5,25	0	0	0	0	0	0	0	0	0	0	0	5,25	5(s)
Nigeria	6,926	0	318	0	0	0	0	0	0	0	0	318	7,244	80
Venezuela	31,021	520	3,985	0	516	0	0	2	0	0	113	5,136	36,157	397
Subtotal Other OPEC	42,366	520	5,225	0	516	0	0	2	0	0	113	6,376	48,742	536
Other														
Angola	4,160	0	0	0	0	0	0	0	0	0	0	0	4,160	46
Argentina	0	0	0	0	0	0	0	0	0	143	17	160	160	2
Australia	2,971	0	0	0	0	0	0	0	0	0	0	0	2,971	33
Bahama Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	3
Belgium	0	0	574	0	0	0	0	0	0	0	5	579	579	6
Brazil	0	213	0	0	0	0	0	0	0	1	0	214	214	2
Cameroon	718	0	0	0	0	0	0	0	0	0	0	0	718	8
Canada	1,721	0	371	0	0	0	0	0	351	112	77	911	2,632	29
China, People's Republic	3,662	0	0	0	0	0	0	0	0	0	44	44	3,706	41
Colombia	5,179	0	0	0	0	0	0	0	0	0	0	0	5,179	57

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, January - March 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III (continued)														
Other (continued)														
Congo	1,539	0	0	0	0	0	0	0	0	0	0	0	1,539	17
Egypt	0	0	0	0	0	0	0	0	0	0	0	2	2	(s)
France	0	0	0	0	0	0	0	0	0	0	51	51	51	1
Guatemala	200	0	0	0	0	0	0	0	0	0	0	200	200	2
India	0	0	1,123	0	0	0	0	0	0	421	0	1,544	1,544	17
Israel	0	0	0	0	0	0	0	0	0	15	0	15	15	(s)
Italy	0	0	935	0	0	0	0	0	0	0	0	935	935	10
Japan	0	0	0	0	0	0	0	0	0	0	60	60	60	1
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	5
Mexico	52,402	1,523	0	0	0	158	0	0	30	0	30	1,741	54,143	595
Netherlands	0	0	58	0	0	0	0	0	0	8	120	186	186	2
Norway	501	0	259	0	0	0	0	0	0	0	0	259	760	8
Oman	0	0	171	0	0	0	0	0	0	0	0	171	171	2
Puerto Rico	0	0	0	0	0	0	0	0	0	0	243	243	243	3
Spain	0	0	410	0	0	86	0	0	0	0	0	496	496	5
Sweden	0	0	0	0	0	0	0	0	0	0	110	110	110	1
Trinidad and Tobago	4,984	0	0	0	0	0	0	0	0	0	0	0	4,984	55
Turkey	0	0	396	0	0	0	0	0	0	0	0	396	396	4
United Kingdom	10,387	0	797	0	0	0	0	0	615	0	52	1,464	11,851	130
U.S.S.R.	0	0	456	0	0	0	0	0	0	0	0	456	456	5
Virgin Islands	0	0	0	0	0	0	716	0	0	0	0	716	716	8
Zaire	1,641	0	0	0	0	0	0	0	0	0	0	0	1,641	18
Subtotal Other	90,489	1,735	5,825	0	0	244	716	0	1,223	700	811	11,254	101,743	1,118
Total Imports	225,176	2,287	19,112	0	516	244	716	2	1,398	700	6,396	31,371	256,547	2,819
PAD District IV														
Other														
Canada	4,877	1,598	0	0	117	0	0	216	0	0	156	2,088	6,965	77
Subtotal Other	4,877	1,598	0	0	117	0	0	216	0	1	156	2,088	6,965	77
Total Imports	4,877	1,598	0	0	117	0	0	216	0	1	156	2,088	6,965	77
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	256	164	0	0	0	0	0	420	420	5
Subtotal Arab OPEC	0	0	0	0	256	164	0	0	0	0	0	420	420	5
Other OPEC														
Indonesia	7,682	0	254	0	0	0	0	0	0	0	214	468	8,150	90
Venezuela	0	0	0	0	0	405	0	0	0	0	0	405	405	4
Subtotal Other OPEC	7,682	0	254	0	0	405	0	0	0	0	214	873	8,555	94

See footnotes at end of table

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - March 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District V (continued)														
Other														
Australia	2,168	0	0	0	0	0	0	0	0	0	0	0	2,168	24
Brunei	150	0	0	0	0	0	0	0	0	0	0	0	150	2
Canada	1,217	914	0	0	333	322	0	167	0	24	72	1,832	3,049	34
China, People's Republic	0	0	0	307	0	0	0	0	0	0	0	307	307	3
China, Taiwan	0	5	0	0	0	0	0	0	0	0	9	14	14	(s)
Japan	0	16	0	0	0	0	0	21	0	0	64	101	101	1
Korea, Republic	0	1	0	0	0	0	0	0	0	0	37	38	38	(s)
Mexico	0	0	0	0	0	100	0	0	0	0	37	137	137	2
Singapore	0	0	0	0	0	25	0	0	1,028	0	0	1,053	1,053	12
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Subtotal Other	3,535	935	0	307	333	448	0	188	1,028	24	220	3,483	7,018	77
Total Imports	11,217	935	254	307	589	1,017	0	188	1,028	24	434	4,776	15,993	176

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(s) = Less than 500 barrels. R = Revised data.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, March 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Total	Daily Average
	I	II	III	IV	V		
Crude Oil (including lease condensate) 1	0	697	0	0	6,047	6,744	218
Natural Gas Liquids	33	514	367	38	222	1,175	38
Pentanes Plus	0	63	0	0	0	63	2
Liquefied Petroleum Gases	33	451	367	38	222	1,112	36
Ethane	(s)	126	(s)	0	(s)	127	4
Propane	17	112	356	15	103	604	19
Normal Butane	15	150	11	23	120	319	10
Isobutane	0	63	0	0	0	63	2
Finished Motor Gasoline	33	26	159	(s)	338	556	18
Naphtha-Type Jet Fuel	1	0	(s)	(s)	0	2	(s)
Kerosene-Type Jet Fuel	129	(s)	1,168	0	327	1,624	52
Kerosene	13	2	5	1	(s)	21	1
Distillate Fuel Oil	21	20	1,356	0	912	2,309	74
Residual Fuel Oil	4	0	2,036	0	3,087	5,127	165
Naphtha < 400 Deg. for Petro. Feed. Use	60	24	58	(s)	14	156	5
Other Oils > 400 Deg. for Petro. Feed. Use	3	42	315	0	221	581	19
Special Naphthas	14	20	83	1	122	247	4
Lubricants	247	41	296	3	160	747	24
Waxes	6	1	28	(s)	10	45	1
Petroleum Coke	318	56	3,760	0	2,587	6,720	217
Asphalt	1	0	5	1	9	15	(s)
Miscellaneous Products	35	3	28	(s)	5	70	2
Total Product Exports	919	750	9,664	45	7,889	19,267	622
Total Exports	919	1,447	9,664	45	13,936	26,011	839

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and

3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January - March 1988

Commodity	Petroleum Administration for Defense Districts					Total	Daily Average
	I	II	III	IV	V		
Crude Oil (including lease condensate) ¹	0	1,567	0	0	16,073	17,640	194
Natural Gas Liquids	87	1,504	1,805	137	491	4,024	44
Pentanes Plus	0	182	0	0	0	182	2
Liquefied Petroleum Gases	87	1,322	1,805	137	491	3,842	42
Ethane	1	365	1	0	(s)	366	4
Propane	47	342	1,727	55	210	2,380	26
Normal Butane	39	434	78	82	281	914	10
Isobutane	0	182	0	0	0	182	2
Finished Motor Gasoline	62	77	587	1	612	1,339	15
Naphtha-Type Jet Fuel	2	0	12	(s)	0	15	(s)
Kerosene-Type Jet Fuel	196	2	3,788	0	1,137	5,123	56
Kerosene	29	121	5	1	1	157	2
Distillate Fuel Oil	51	69	3,811	0	4,014	7,945	87
Residual Fuel Oil	7	0	4,785	0	12,868	17,661	194
Naphtha < 400 Deg. for Petro. Feed. Use	146	54	131	2	40	372	4
Other Oils > 400 Deg. for Petro. Feed. Use	4	57	947	0	610	1,619	18
Special Naphthas	36	30	214	1	11	293	3
Lubricants	528	123	847	10	392	1,901	21
Waxes	15	5	65	(s)	27	112	1
Petroleum Coke	839	114	12,131	(s)	7,282	20,367	224
Asphalt	3	2	6	(s)	4	16	(s)
Miscellaneous Products	92	7	71	(s)	16	187	2
Total Product Exports	2,099	2,166	29,205	154	27,507	61,131	672
Total Exports	2,099	3,733	29,205	154	43,580	78,771	866

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, March 1988

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	4	1	0	0	0	115	121	4
Australia	0	2	0	0	0	565	1	10	(s)	194	0	10	783	25
Bahamas	0	0	40	45	252	583	0	4	0	0	0	0	924	30
Bahrain	0	0	0	0	0	0	0	(s)	0	64	0	0	64	2
Belgium & Luxembourg	0	3	0	0	0	0	32	31	(s)	6	(s)	(s)	72	2
Brazil	0	0	0	0	0	0	8	1	(s)	38	0	0	10	(s)
Cameroon	0	0	0	0	0	0	0	0	0	0	0	0	38	1
Canada	697	519	156	673	447	680	27	138	4	560	2	164	4,066	131
Chile	0	(s)	0	0	0	474	3	27	(s)	122	0	1	32	1
China, Taiwan	0	3	1	0	(s)	0	(s)	44	2	0	0	4	650	21
Colombia	0	0	0	0	0	0	0	13	(s)	(s)	(s)	1	12	(s)
Costa Rica	0	0	0	0	0	0	2	9	(s)	0	(s)	1	2	(s)
Denmark	0	0	0	0	0	0	(s)	(s)	(s)	0	(s)	1	60	2
Dominican Republic	0	0	0	0	56	0	0	4	0	0	0	(s)	27	1
Ecuador	0	0	0	0	0	0	0	26	(s)	0	0	1	(s)	(s)
Egypt	0	0	0	0	0	0	0	2	0	(s)	0	0	2	(s)
El Salvador	0	0	0	0	0	0	0	1	0	0	0	58	327	11
Finland	0	0	0	0	0	0	(s)	4	(s)	264	0	0	31	1
France	0	0	0	0	0	30	0	1	0	41	0	0	42	1
French Pacific Isl	0	0	0	0	0	0	0	1	0	0	0	(s)	2	(s)
Ghana	0	0	0	0	92	0	0	12	(s)	0	(s)	0	319	10
Greece	0	2	79	7	0	0	1	1	0	0	0	0	1	(s)
Guatemala	0	128	0	0	0	0	0	1	(s)	0	(s)	0	79	3
Guinea	0	0	0	0	65	0	0	1	(s)	0	(s)	0	6	(s)
Honduras	0	13	0	0	0	0	0	5	(s)	0	(s)	7	18	1
Hong Kong	0	1	0	0	0	0	0	10	(s)	0	0	(s)	102	3
India	0	0	0	0	0	0	0	5	(s)	97	0	3	213	7
Indonesia	0	0	0	0	0	0	(s)	1	(s)	(s)	0	97	1,223	39
Israel	0	1	0	208	0	0	5	3	1	1,114	0	0	5	(s)
Italy	0	4	0	0	0	0	0	5	0	0	0	0	310	10
Ivory Coast	0	0	0	0	76	217	0	1	1	0	0	1	310	10
Jamaica	0	14	0	0	927	396	23	41	3	1,645	(s)	21	3,818	123
Japan	0	1	278	483	0	0	0	0	0	0	0	0	1	(s)
Jordan	0	1	0	0	0	0	1	23	(s)	(s)	0	112	143	5
Korea, Republic	0	5	1	0	0	1	0	(s)	0	0	0	(s)	(s)	(s)
Kuwait	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	1	1	0	(s)	1	3	(s)
Malaysia	0	0	0	0	0	0	0	85	13	56	(s)	10	1,785	58
Mexico	0	367	1	(s)	1	1,248	5	2	2	815	0	18	837	27
Netherlands	0	0	0	0	0	0	0	0	0	0	0	(s)	465	15
Netherlands Antilles	0	0	0	0	0	463	0	(s)	(s)	(s)	(s)	0	1	(s)
New Zealand	0	(s)	0	0	0	0	0	0	0	0	(s)	0	3	(s)
Nigeria	0	0	0	0	0	0	0	(s)	(s)	43	(s)	0	45	1
Norway	0	1	0	0	0	0	0	(s)	(s)	0	(s)	0	(s)	(s)
Pacific Trust Terr.	0	0	0	0	147	0	0	2	0	0	(s)	0	149	5
Panama	0	0	0	0	207	0	(s)	1	0	0	(s)	1	418	13
Peru	0	(s)	0	0	0	0	2	1	(s)	0	0	2	6	(s)
Philippines	0	(s)	0	209	0	0	(s)	29	(s)	1	(s)	11	1,068	35
Puerto Rico	1,039	5	0	0	0	1	1	1	(s)	0	(s)	(s)	150	5
Rep. of South Africa	0	(s)	0	0	0	0	0	7	(s)	149	0	5	16	1
Saudi Arabia	0	3	0	0	0	0	(s)	0	(s)	2	0	0	0	0

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, March 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Singapore	0	0	0	0	0	0	(s)	2	(s)	(s)	(s)	119	121	4
Spain	0	0	0	0	0	463	0	9	15	1,188	0	1	1,676	54
Surinam	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Sweden	0	0	0	0	0	0	1	1	(s)	0	(s)	(s)	3	(s)
Switzerland	0	0	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Thailand	0	0	0	0	0	0	0	2	(s)	0	0	4	6	(s)
Trinidad and Tobago	0	0	0	0	0	0	(s)	(s)	(s)	0	0	1	2	(s)
Turkey	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
United Arab Emirates	0	0	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
United Kingdom	0	1	0	0	0	0	0	4	1	2	1	22	29	1
U.S.S.R.	0	0	0	0	0	0	0	54	0	0	0	9	64	2
Uruguay	0	(s)	0	0	0	0	0	1	0	0	0	(s)	2	(s)
Venezuela	0	3	0	0	0	0	2	4	1	156	0	6	172	6
Virgin Islands	5,008	(s)	0	0	0	0	0	1	0	0	0	0	5,009	162
West Germany	0	4	0	0	0	0	1	93	1	71	5	19	194	6
Yugoslavia	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Other	0	31	1	0	41	6	2	16	(s)	91	(s)	57	244	8
Total	6,744	1,112	556	1,626	2,309	5,127	122	747	45	6,720	9	892	26,011	839

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - March 1988

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	4	4	(s)	1	0	115	127	1
Australia	0	4	0	0	0	1,155	19	27	(s)	750	(s)	21	1,976	22
Bahamas	0	29	143	93	569	1,912	0	11	(s)	0	(s)	(s)	2,757	30
Bahrain	0	(s)	0	0	(s)	0	0	(s)	0	125	(s)	(s)	126	1
Belgium & Luxembourg	0	19	36	0	0	0	36	63	(s)	1,728	(s)	1	1,848	20
Brazil	0	50	36	0	0	0	25	12	(s)	86	0	1	210	2
Cameroon	0	0	0	0	0	0	0	(s)	0	38	0	0	38	(s)
Canada	1,567	1,504	311	1,314	1,242	720	47	300	13	1,020	6	507	8,551	94
Chile	0	1	0	0	0	0	3	59	4	165	0	3	67	1
China, Taiwan	303	4	1	0	581	2,623	(s)	113	(s)	(s)	(s)	23	3,817	42
Colombia	0	(s)	0	0	0	0	(s)	20	(s)	(s)	0	8	28	(s)
Costa Rica	0	(s)	10	0	0	0	4	19	(s)	(s)	(s)	3	36	3
Cuba	0	(s)	0	0	0	0	(s)	11	(s)	255	(s)	2	259	1
Denmark	0	0	0	0	56	0	(s)	11	(s)	0	0	2	70	1
Dominican Republic	0	0	0	10	(s)	0	2	31	(s)	0	0	3	47	(s)
Ecuador	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Egypt	0	0	0	0	0	0	1	5	0	(s)	0	0	7	(s)
El Salvador	0	0	0	0	0	0	0	7	0	0	0	(s)	7	(s)
Finland	0	0	0	0	0	0	(s)	11	0	613	0	268	897	10
France	0	2	0	0	0	30	0	11	3	0	0	0	424	5
French Pacific Isl.	0	1	0	0	392	0	0	1	0	84	0	0	85	1
Ghana	0	3	0	0	0	0	0	1	2	345	0	0	350	4
Greece	0	0	0	0	0	0	4	26	(s)	0	(s)	1	778	9
Guatemala	0	243	114	7	382	0	0	3	0	0	0	0	3	(s)
Guinea	0	0	0	0	0	0	0	10	3	0	0	0	111	1
Honduras	0	28	0	0	70	0	1	7	(s)	0	(s)	1	10	(s)
Hong Kong	0	1	0	0	0	0	(s)	14	(s)	0	0	25	41	(s)
India	0	0	0	0	0	0	2	10	(s)	97	(s)	(s)	110	1
Indonesia	0	0	0	0	0	0	(s)	10	3	134	0	5	351	4
Israel	0	1	0	208	0	0	(s)	14	(s)	3,100	(s)	312	3,563	39
Italy	0	111	3	0	0	0	0	5	0	0	(s)	(s)	5	(s)
Ivory Coast	0	0	0	0	0	0	0	11	1	0	0	3	746	8
Jamaica	0	23	0	0	76	632	(s)	122	9	4,561	(s)	112	14,153	156
Japan	0	1	646	2,938	3,292	2,421	50	0	2	0	0	0	3	(s)
Jordan	0	1	0	0	0	1,101	5	53	1	374	(s)	355	1,900	21
Korea, Republic	0	9	1	0	0	0	0	2	0	0	0	0	3	(s)
Kuwait	0	1	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	2	1	0	(s)	0	5	(s)
Malaysia	0	0	0	0	0	0	0	275	45	197	(s)	2	5,392	59
Mexico	0	1,550	2	17	1	3,262	15	8	2	2,178	(s)	164	2,376	26
Netherlands	0	1	9	0	0	1,198	0	6	0	0	0	2	1,206	13
Netherlands Antilles	0	(s)	0	0	(s)	0	0	6	(s)	127	(s)	2	135	1
New Zealand	0	0	0	0	0	0	1	6	1	221	(s)	0	227	2
Nigeria	0	0	0	0	0	0	0	(s)	3	0	(s)	0	(s)	(s)
Norway	0	2	0	0	0	0	0	118	0	0	0	6	817	9
Pacific Trust Terr.	0	0	0	0	0	300	7	19	(s)	0	(s)	2	1,416	16
Panama	0	0	34	0	352	0	1	6	(s)	(s)	0	3	28	(s)
Peru	0	20	25	534	827	0	5	72	(s)	0	0	28	2,297	25
Philippines	0	(s)	0	0	0	3	1	3	(s)	0	(s)	6	158	2
Puerto Rico	2,177	11	0	0	0	0	(s)	3	(s)	149	(s)	0	0	
Rep. of South Africa	0	1	0	0	0	0	0	0	0	0	0	0	0	

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - March 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petro-leum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Saudi Arabia	0	41	0	0	0	0	(s)	21	(s)	2	0	9	73	1
Singapore	0	1	0	0	0	843	5	8	(s)	(s)	(s)	119	976	11
Spain	0	(s)	0	0	0	782	0	16	15	2,286	0	113	3,214	35
Surinam	0	35	0	0	0	0	0	5	0	0	0	(s)	40	(s)
Sweden	0	0	0	0	0	0	1	3	(s)	0	0	1	6	(s)
Switzerland	0	(s)	0	0	0	0	(s)	2	(s)	0	0	(s)	3	(s)
Thailand	0	(s)	0	0	0	0	3	9	(s)	0	0	94	106	1
Trinidad and Tobago	0	3	0	0	0	0	(s)	1	(s)	0	0	2	6	(s)
Turkey	0	(s)	0	0	0	0	0	15	0	332	0	2	349	4
United Arab Emirates	0	(s)	0	0	0	0	(s)	19	0	28	(s)	1	48	1
United Kingdom	0	1	0	0	1	204	1	7	2	511	2	40	768	8
U.S.S.R.	0	0	0	0	0	0	0	110	0	140	0	16	266	3
Uruguay	0	(s)	0	0	0	0	0	2	(s)	0	0	1	3	(s)
Venezuela	0	4	0	2	(s)	0	0	13	1	358	0	13	392	4
Virgin Islands	13,593	3	0	0	0	0	2	15	0	0	0	4	13,615	150
West Germany	0	9	(s)	0	0	0	11	109	3	144	5	21	304	3
Yugoslavia	0	0	0	0	0	0	0	(s)	0	95	0	(s)	96	1
Other	0	121	2	13	103	475	2	38	(s)	120	(s)	60	936	10
Total	17,640	3,842	1,339	5,138	7,945	17,661	293	1,901	112	20,367	16	2,517	78,771	866

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

² Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1988
(Thousand Barrels)

(Thousand Barrels)																
Commodity	PAD District I			PAD District II			PAD District III					PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	West Coast
Crude Oil (incl. lease condensate)																
Refinery	--	--	13,441	--	--	--	12,480	--	--	--	--	--	50,341	2,070	22,471	100,803
Tank Farms and Pipelines	--	--	1,365	--	--	--	59,811	--	--	--	--	--	104,554	10,557	33,689	209,976
Leases	--	--	39	--	--	--	1,412	--	--	--	--	--	16,831	1,172	1,781	21,235
Strategic Petroleum Reserve¹	--	--	0	--	--	--	0	--	--	--	--	--	544,938	0	0	544,938
Alaskan In-Transit	--	--	0	--	--	--	0	--	--	--	--	--	0	0	21,611	21,611
Total	--	--	14,845	--	--	--	73,703	--	--	--	--	--	716,664	13,799	79,552	898,563
Total Stocks, All Oils (excl. Crude Oil)																
Refinery	40,323	3,268	43,591	39,239	7,825	15,175	62,239	9,429	72,898	46,428	5,613	1,164	135,532	12,390	61,299	315,051
Bulk Terminal	--	--	91,034	--	--	--	59,923	--	--	--	--	--	55,262	2,632	20,528	229,379
Pipeline	--	--	24,256	--	--	--	36,295	--	--	--	--	--	38,590	2,429	4,303	105,873
Natural Gas Processing Plant	103	36	139	107	37	2,024	2,168	1,231	3,392	2,143	186	117	7,069	197	70	9,643
Total	--	--	159,020	--	--	--	160,625	--	--	--	--	--	236,453	17,648	86,200	659,946
Pentanes Plus																
Refinery	19	0	19	128	35	134	297	289	244	69	1	20	623	1	29	969
Bulk Terminal	--	--	15	--	--	--	1,072	--	--	--	--	--	1,827	0	4	2,918
Pipeline	--	--	0	--	--	--	619	--	--	--	--	--	973	77	0	1,669
Natural Gas Processing Plant	5	8	13	18	11	398	427	379	405	643	73	27	1,527	75	21	2,063
Total	--	--	47	--	--	--	2,415	--	--	--	--	--	4,950	153	54	7,619
Liquefied Petroleum Gases																
Refinery	630	14	644	1,547	179	515	2,241	1,145	2,007	2,236	32	28	5,448	334	608	9,275
Bulk Terminal	--	--	1,210	--	--	--	8,121	--	--	--	--	--	27,320	32	654	37,337
Pipeline	--	--	903	--	--	--	7,157	--	--	--	--	--	6,153	436	0	14,649
Natural Gas Processing Plant	98	28	126	89	26	1,626	1,741	828	2,981	1,499	111	90	5,509	122	49	7,547
Total	--	--	2,883	--	--	--	19,260	--	--	--	--	--	44,430	924	1,311	68,808
Ethane																
Refinery	5	0	5	1	0	0	1	83	327	0	0	0	410	0	0	416
Bulk Terminal	--	--	2	--	--	--	1,145	--	--	--	--	--	10,594	0	0	11,741
Pipeline	--	--	0	--	--	--	1,635	--	--	--	--	--	2,299	135	0	4,069
Natural Gas Processing Plant	0	0	0	17	0	200	217	80	927	161	9	13	1,190	3	0	1,410
Total	--	--	7	--	--	--	2,998	--	--	--	--	--	14,493	138	0	17,636

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1988 (continued)
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III					PAD District IV		United States		
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Propane																
Refinery	341	5	346	791	18	112	921	328	750	994	6	4	2,082	63	134	3,546
Bulk Terminal	--	--	852	--	--	--	4,613	--	--	--	--	--	9,845	32	127	15,469
Pipeline	--	--	831	--	--	--	3,898	--	--	--	--	--	2,390	172	0	7,291
Natural Gas Processing Plant	50	19	69	39	17	971	1,027	430	1,067	126	40	53	1,716	90	34	2,936
Total	--	--	2,098	--	--	--	10,459	--	--	--	--	--	16,033	357	295	29,242
Normal Butane																
Refinery	248	9	257	515	86	298	899	435	524	816	6	15	1,796	175	368	3,495
Bulk Terminal	--	--	354	--	--	--	1,324	--	--	--	--	--	3,247	0	332	5,257
Pipeline	--	--	54	--	--	--	1,149	--	--	--	--	--	844	83	0	2,130
Natural Gas Processing Plant	46	7	53	17	9	363	389	264	472	451	41	19	1,247	23	10	1,722
Total	--	--	718	--	--	--	3,761	--	--	--	--	--	7,134	281	710	12,604
Isobutane																
Refinery	36	0	36	240	75	105	420	299	406	426	20	9	1,160	96	106	1,818
Bulk Terminal	--	--	2	--	--	--	1,039	--	--	--	--	--	3,634	0	195	4,870
Pipeline	--	--	18	--	--	--	475	--	--	--	--	--	620	46	0	1,159
Natural Gas Processing Plant	2	2	4	16	0	92	108	54	515	761	21	5	1,356	6	5	1,479
Total	--	--	60	--	--	--	2,042	--	--	--	--	--	6,770	148	306	9,326
Other Hydrocarbons and Alcohol																
Refinery	82	0	82	138	1	11	150	1	149	154	0	3	307	8	35	582
Total	--	--	82	--	--	--	150	--	--	--	--	--	307	8	35	582
Unfinished Oils																
Refinery																
Naphtha and Lighter	3,008	188	3,196	3,941	149	997	5,087	696	7,307	4,368	163	77	12,611	522	4,685	26,101
Kerosene and Light Gas Oils	2,914	139	3,053	2,255	102	433	2,790	353	6,214	2,758	151	3	9,479	295	4,328	19,945
Heavy Gas Oils	3,785	223	4,008	3,481	98	1,830	5,409	569	8,895	7,926	402	155	17,947	688	9,568	37,620
Residuum	1,014	135	1,149	2,100	67	1,145	3,312	529	4,698	3,841	113	0	9,181	319	4,507	18,468
Total	10,721	685	11,406	11,777	416	4,405	16,598	2,147	27,114	18,893	829	235	49,218	1,824	23,088	102,134

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1988

Table 24. Stocks of Crude Oil and Petroleum Products by District (Thousand Barrels)																
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Dist. V Rocky Mt.	Dist. V West Coast
Motor Gasoline Blending Components																
Refinery	4,571	101	4,672	5,091	590	1,756	7,437	1,103	7,075	4,558	145	212	13,093	2,233	7,914	35,349
Bulk Terminal	--	--	146	--	--	--	439	--	--	--	--	--	1,267	28	27	1,907
Pipeline	--	--	16	--	--	--	38	--	--	--	--	--	0	0	0	54
Total	--	--	4,834	--	--	--	7,914	--	--	--	--	--	14,360	2,261	7,941	37,310
Aviation Gasoline Blending Components																
Refinery	0	0	0	111	0	8	119	0	0	39	0	0	39	0	23	181
Total	--	--	0	--	--	--	119	--	--	--	--	--	39	0	23	181
Total Finished Motor Gasoline																
Refinery	11,069	627	11,696	6,285	1,549	3,128	10,962	1,875	10,457	5,068	1,089	169	18,658	2,471	8,238	52,025
Bulk Terminal	--	--	37,821	--	--	--	29,337	--	--	--	--	--	9,651	1,691	10,534	89,034
Pipeline	--	--	13,634	--	--	--	18,036	--	--	--	--	--	18,086	1,170	1,963	52,889
Total	--	--	63,151	--	--	--	58,335	--	--	--	--	--	46,395	5,332	20,735	193,948
Finished Leaded Motor Gasoline																
Refinery	1,628	194	1,822	1,596	307	1,134	3,037	568	2,516	1,061	127	56	4,328	1,148	2,846	13,181
Bulk Terminal	--	--	8,229	--	--	--	8,248	--	--	--	--	--	3,054	756	3,750	24,037
Pipeline	--	--	2,325	--	--	--	5,026	--	--	--	--	--	3,607	425	325	11,708
Total	--	--	12,376	--	--	--	16,311	--	--	--	--	--	10,989	2,329	6,921	48,926
Finished Unleaded Motor Gasoline																
Refinery	9,441	433	9,874	4,689	1,242	1,994	7,925	1,307	7,941	4,007	962	113	14,330	1,323	5,392	38,844
Bulk Terminal	--	--	29,592	--	--	--	21,089	--	--	--	--	--	6,597	935	6,784	64,997
Pipeline	--	--	11,309	--	--	--	13,010	--	--	--	--	--	14,479	745	1,638	41,181
Total	--	--	50,775	--	--	--	42,024	--	--	--	--	--	35,406	3,003	13,814	145,022
Finished Aviation Gasoline																
Refinery	90	0	90	84	23	8	115	108	376	161	0	0	645	50	128	1,028
Bulk Terminal	--	--	256	--	--	--	323	--	--	--	--	--	33	15	273	900
Pipeline	--	--	0	--	--	--	46	--	--	--	--	--	10	0	0	56
Total	--	--	346	--	--	--	484	--	--	--	--	--	688	65	401	1,984

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1988 (continued)

Monthly Petroleum Balance Sheet																
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.	Dist. V West Coast
Naphtha-Type Jet Fuel																
Refinery	265	0	265	269	23	154	446	290	561	594	107	73	1,625	265	566	3,167
Bulk Terminal	--	--	784	--	--	--	1,065	--	--	--	--	--	433	9	494	2,785
Pipeline	--	--	95	--	--	--	128	--	--	--	--	--	561	84	336	1,204
Total	--	--	1,144	--	--	--	1,639	--	--	--	--	--	2,619	358	1,396	7,156
Kerosene-Type Jet Fuel																
Refinery	1,412	26	1,438	1,503	199	480	2,182	516	3,499	2,411	56	41	6,523	399	3,803	14,345
Bulk Terminal	--	--	3,748	--	--	--	2,962	--	--	--	--	--	2,137	285	1,964	11,096
Pipeline	--	--	4,233	--	--	--	3,313	--	--	--	--	--	5,650	191	720	14,107
Total	--	--	9,419	--	--	--	8,457	--	--	--	--	--	14,310	875	6,487	39,548
Kerosene																
Refinery	256	59	315	626	62	169	857	73	622	304	27	0	1,026	24	207	2,429
Bulk Terminal	--	--	1,989	--	--	--	787	--	--	--	--	--	481	33	47	3,337
Pipeline	--	--	278	--	--	--	140	--	--	--	--	--	156	0	10	584
Total	--	--	2,582	--	--	--	1,784	--	--	--	--	--	1,663	57	264	6,350
Distillate Fuel Oils																
Refinery	4,745	307	5,052	3,336	1,044	2,173	6,553	568	7,093	2,844	664	59	11,228	1,303	4,499	28,635
Bulk Terminal	--	--	22,932	--	--	--	9,906	--	--	--	--	--	3,623	493	3,555	40,509
Pipeline	--	--	5,093	--	--	--	6,802	--	--	--	--	--	6,675	471	1,121	20,162
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	6
Total	--	--	33,077	--	--	--	23,261	--	--	--	--	--	21,532	2,267	9,175	89,312
Residual Fuel Oils																
Refinery	2,536	71	2,607	1,529	267	145	1,941	259	4,196	3,324	220	10	8,009	361	6,577	19,495
Bulk Terminal	--	--	15,042	--	--	--	930	--	--	--	--	--	6,251	0	2,239	24,462
Pipeline	--	--	4	--	--	--	0	--	--	--	--	--	60	0	36	100
Total	--	--	17,653	--	--	--	2,871	--	--	--	--	--	14,320	361	8,852	44,057
Naphtha < 400 Deg. Petro. Feed. Use																
Refinery	345	0	345	319	0	81	400	61	1,096	263	52	12	1,484	37	138	2,404
Total	345	0	345	319	0	81	400	61	1,096	263	52	12	1,484	37	138	2,404
Other Oils > 400 Deg. Petro. Feed. Use																
Refinery	5	0	5	6	0	3	9	57	968	260	0	0	1,285	2	161	1,462
Total	5	0	5	6	0	3	9	57	968	260	0	0	1,285	2	161	1,462

See footnotes at end of table.

(Thousand Barrels)

Table 24. Stocks of Petroleum Products (Thousand Barrels)															
Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States	
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	PAD Dist. V West Coast
Special Naphthas															
Refinery	496	44	540	178	0	114	292	105	1,181	32	145	0	1,463	7	102
Bulk Terminal	--	--	581	--	--	--	257	--	--	--	--	--	65	0	19
Total	--	--	1,121	--	--	--	549	--	--	--	--	--	1,528	7	121
Lubricants															
Refinery	379	876	1,255	1,034	0	162	1,196	21	4,191	1,546	428	0	6,186	73	1,161
Bulk Terminal	--	--	1,990	--	--	--	1,051	--	--	--	--	--	437	1	522
Total	--	--	3,245	--	--	--	2,247	--	--	--	--	--	6,623	74	1,683
Waxes															
Refinery	0	62	62	80	0	27	107	37	212	155	16	0	420	70	130
Total	--	--	62	--	--	--	107	--	--	--	--	--	420	70	130
Petroleum Coke															
Refinery	657	0	657	279	1,284	186	1,749	13	314	2,561	216	0	3,104	39	1,656
Total	657	0	657	279	1,284	186	1,749	13	314	2,561	216	0	3,104	39	1,656
Asphalt and Road Oil															
Refinery	1,899	353	2,252	4,756	2,147	1,502	8,405	725	1,115	752	1,585	302	4,479	2,860	1,974
Bulk Terminal	--	--	4,080	--	--	--	3,553	--	--	--	--	--	810	44	166
Total	--	--	6,332	--	--	--	11,958	--	--	--	--	--	5,289	2,904	2,140
Miscellaneous Products															
Refinery	146	43	189	163	6	14	183	36	428	204	1	0	669	29	262
Bulk Terminal	--	--	440	--	--	--	120	--	--	--	--	--	927	1	30
Pipeline	--	--	0	--	--	--	16	--	--	--	--	--	266	0	117
Natural Gas Processing Plant	0	0	0	0	0	0	0	24	0	1	2	0	27	0	27
Total	--	--	629	--	--	--	319	--	--	--	--	--	1,889	30	409
Total Stocks, All Oils	--	--	173,865	--	--	--	234,328	--	--	--	--	--	953,117	31,447	165,752
															1,558,509

¹ Includes 38,395 thousand barrels of domestic crude oil.

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, March 31, 1988
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	10,051	39,466	2,304	27,984	17,649
Connecticut	545	1,389	171	1,913	279
Delaware, D.C., Maryland	329	2,024	137	1,664	1,289
Florida	1,155	5,305	126	1,679	1,337
Georgia	1,014	1,821	80	791	395
Maine, New Hampshire, Vermont	319	1,134	115	1,555	653
Massachusetts	265	1,660	75	1,940	1,269
New Jersey	1,686	10,622	120	6,118	6,615
New York	1,017	4,477	257	3,967	3,053
North Carolina	891	1,726	345	1,218	214
Pennsylvania	1,431	4,640	512	3,369	1,275
Rhode Island	114	718	w	951	w
South Carolina	527	1,242	141	762	w
Virginia	619	2,538	212	1,953	758
West Virginia	139	170	w	104	w
PAD District II Total	11,285	29,014	1,644	16,459	2,871
Illinois	2,100	5,202	389	2,601	1,075
Indiana	1,527	4,077	109	1,953	471
Iowa	619	1,020	w	794	w
Kansas, Nebraska	1,120	2,400	23	1,774	45
Kentucky	548	1,045	107	647	w
Michigan	1,080	3,359	176	1,712	166
Minnesota	636	1,789	w	1,560	214
Missouri	429	1,023	w	525	w
North Dakota, South Dakota	198	526	w	603	w
Ohio	993	3,949	515	1,696	224
Oklahoma	904	1,473	w	1,188	206
Tennessee	603	1,385	85	536	198
Wisconsin	528	1,766	w	870	33
PAD District III Total	7,382	20,927	1,507	14,851	14,260
Alabama	527	1,187	58	625	788
Arkansas	178	223	w	118	w
Louisiana	1,146	3,926	321	3,092	5,385
Mississippi	622	2,170	14	1,150	w
New Mexico	157	311	w	152	10
Texas	4,752	13,110	1,108	9,714	7,660
PAD District IV Total	1,904	2,258	57	1,796	361
Colorado	377	694	w	336	w
Idaho	93	136	w	72	w
Montana	671	507	w	587	88
Utah	275	323	w	298	102
Wyoming	488	598	w	503	w
PAD District V Total	6,596	12,176	254	8,054	8,816
Alaska	292	535	w	1,094	w
Arizona	219	326	w	201	w
California	3,519	7,719	124	4,761	6,281
Hawaii	81	448	w	363	w
Nevada	108	174	w	104	w
Oregon	739	905	w	543	321
Washington	1,638	2,069	w	988	1,164
U.S. Total	37,218	103,841	5,766	69,144	43,957

w = Withheld to avoid disclosure of individual company data.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, March 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	IV	V
Crude Oil	0	0	0	0	138	1,872	689	0	656	42,015	0	0	6,787	2,690	0
Petroleum Products	6,958	121	0	0	3,812	6,453	1,851	0	79,208	27,764	0	2,144	1,299	1,335	1,424
Pentanes Plus	0	0	0	0	0	249	0	0	0	651	0	0	60	161	0
Liquefied Petroleum Gases	0	0	0	0	578	3,670	123	0	2,318	4,835	0	0	533	1,174	0
Unfinished Oils	0	0	0	0	0	0	0	0	327	0	0	141	0	0	0
Blending Components	30	0	0	0	223	0	0	0	109	15	0	64	0	0	0
Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	4,670	0	0	0	1,979	1,478	931	0	43,933	14,141	0	999	428	0	956
Finished Motor Gasoline	987	0	0	0	364	424	187	0	6,743	3,017	0	296	166	0	405
Finished Leaded Motor Gasoline	3,683	0	0	0	1,615	1,054	744	0	37,190	11,124	0	703	262	0	551
Finished Unleaded Motor Gasoline	13	0	0	0	0	0	9	0	138	49	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	108	0	0	625	0	0	342	62	0	60
Naphtha-Type Jet Fuel	281	0	0	0	224	80	575	0	10,643	3,043	0	189	4	0	92
Kerosene-Type Jet Fuel	55	0	0	0	25	99	0	0	673	0	0	0	0	0	0
Kerosene	1,789	0	0	0	633	476	213	0	18,750	4,264	0	347	212	0	316
Distillate Fuel Oil	0	0	0	0	0	263	0	0	537	117	0	0	0	0	0
Residual Fuel Oil	119	54	0	0	31	0	0	0	0	90	0	0	0	0	0
Petrochemical Feedstocks ¹	1	6	0	0	0	12	0	0	185	143	0	0	0	0	0
Special Naphthas	0	40	0	0	101	18	0	0	636	401	0	62	0	0	25
Lubricants	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	0	250	15	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	81	0	0	0	0	0	31
Miscellaneous Products	0	21	0	0	18	0	0	0	0	0	0	0	0	0	0
Total	6,958	121	0	0	3,950	8,325	2,540	0	79,864	69,779	0	2,144	8,086	4,025	1,424
													951		0
														0	21,930

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, March 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	III	IV
Crude Oil	0	0	0	0	1,872	689	0	42,015	0	0	6,787	2,690	0	3,162	0
Petroleum Products	6,769	0	2,228	6,142	1,851	1,851	62,348	23,746	0	1,877	1,299	1,335	1,424	0	0
Pentanes Plus	0	0	0	249	0	0	0	651	0	0	60	161	0	0	0
Liquefied Petroleum Gases	0	0	578	3,652	123	1,959	4,827	0	0	0	533	1,174	0	0	0
Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	213	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,648	0	1,042	1,478	931	35,174	12,276	0	999	428	0	956	0	0	0
Finished Leaded Motor Gasoline	965	0	173	424	187	5,355	2,528	0	296	166	0	405	0	0	0
Finished Unleaded Motor Gasoline	3,683	0	869	1,054	744	29,819	9,748	0	703	262	0	551	0	0	0
Finished Aviation Gasoline	13	0	0	0	9	27	49	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	108	0	198	0	0	342	62	0	60	0	0	0
Kerosene-Type Jet Fuel	281	0	139	80	575	8,667	2,601	0	189	4	0	92	0	0	0
Kerosene	55	0	0	99	0	591	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,772	0	256	476	213	15,732	3,342	0	347	212	0	316	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,769	0	2,228	8,014	2,540	62,348	65,761	0	1,877	8,086	4,025	1,424	3,162	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, March 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to					From V to			
	II	III	V	I	III	V	I	New England	Central Atlan- tic	Lower Atlan- tic	II	V	I	II	III
Crude Oil	0	0	0	138	0	0	656	0	656	0	0	0	951	0	18,712
Petroleum Products	189	121	0	1,584	311	0	16,860	240	1,793	14,827	4,018	267	0	0	56
Liquefied Petroleum Gases	0	0	0	0	18	0	359	0	0	359	8	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	327	0	66	261	0	141	0	0	0
Motor Gasoline Blending Components	30	0	0	10	0	0	109	0	49	60	15	64	0	0	0
Finished Motor Gasoline	22	0	0	937	0	0	8,759	0	29	8,730	1,865	0	0	0	0
Finished Leaded Motor Gasoline	22	0	0	191	0	0	1,388	0	0	1,388	489	0	0	0	0
Finished Unleaded Motor Gasoline	0	0	0	746	0	0	7,371	0	29	7,342	1,376	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	111	0	40	71	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	427	0	210	217	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	85	0	0	1,976	0	143	1,833	442	0	0	0	0
Kerosene	0	0	0	25	0	0	82	0	25	57	0	0	0	0	0
Distillate Fuel Oil	17	0	0	377	0	0	3,018	240	547	2,231	922	0	0	0	0
Residual Fuel Oil	0	0	0	0	263	0	537	0	325	212	117	0	0	0	0
Petrochemical Feedstocks¹	119	54	0	31	0	0	0	0	0	0	90	0	0	0	0
Special Naphthas	1	6	0	0	12	0	185	0	33	152	143	0	0	0	0
Lubricants	0	40	0	101	18	0	636	0	278	358	401	62	0	0	25
Waxes	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	250	0	0	250	15	0	0	0	0
Miscellaneous Products	0	21	0	18	0	0	81	0	45	36	0	0	0	0	31
Total	189	121	0	1,722	311	0	17,516	240	2,449	14,827	4,018	267	951	0	18,768

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, March 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	1,745	0	1,745	48,802	2,699	46,103	26,436	42,671	-16,235	689	9,477	-8,788	0	22,825	-22,825
Petroleum Products	83,020	7,079	75,941	36,021	12,116	23,905	7,965	109,116	-101,151	1,851	4,058	-2,207	3,568	56	3,512
Pentanes Plus	0	0	0	711	249	462	410	651	-241	0	221	-221	0	0	0
Liquefied Petroleum Gases	2,896	0	2,896	5,368	4,371	997	4,844	7,153	-2,309	123	1,707	-1,584	0	0	0
Unfinished Oils	327	0	327	0	0	0	0	468	-468	0	0	0	141	0	141
Blending Components															
Motor Gasoline	332	30	302	45	223	-178	0	188	-188	0	0	0	64	0	64
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	45,912	4,670	41,242	19,239	4,388	14,851	1,478	59,073	-57,595	931	1,384	-453	1,955	0	1,955
Finished Leaded Motor Gasoline	7,107	987	6,120	4,170	975	3,195	424	10,056	-9,632	187	571	-384	701	0	701
Finished Unleaded Motor Gasoline	38,805	3,683	35,122	15,069	3,413	11,656	1,054	49,017	-47,963	744	813	-69	1,254	0	1,254
Finished Aviation Gasoline	138	13	125	62	9	53	0	187	-187	9	0	9	0	0	0
Naphtha-Type Jet Fuel	625	0	625	62	108	-46	108	967	-859	0	122	-122	402	0	402
Kerosene-Type Jet Fuel	10,867	281	10,586	3,328	879	2,449	80	13,875	-13,795	575	96	479	281	0	281
Kerosene	698	55	643	55	124	-69	99	673	-574	0	0	0	0	0	0
Distillate Fuel Oil	19,383	1,789	17,594	6,265	1,322	4,943	476	23,361	-22,885	213	528	-315	663	0	663
Residual Fuel Oil	537	0	537	117	263	-146	263	654	-391	0	0	0	0	0	0
Petrochemical Feedstocks ¹	31	173	-142	209	31	178	54	90	-36	0	0	0	0	0	0
Special Naphthas	185	7	178	144	12	132	18	328	-310	0	0	0	0	0	0
Lubricants	737	40	697	401	119	282	83	1,099	-1,016	0	0	0	62	25	37
Waxes	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	250	0	250	15	0	15	0	265	-265	0	0	0	0	0	0
Miscellaneous Products	99	21	78	0	18	-18	52	81	-29	0	0	0	0	31	-31
Total	84,765	7,079	77,686	84,823	14,815	70,008	34,401	151,787	-117,386	2,540	13,535	-10,995	3,568	22,881	-19,313

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 30. Production of Residual Fuel Oil by Sulfur Content by PAD District, March, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La., Gulf Coast	N. La., Ark.	New Mexico	Total				
Residual Fuel Oil	3,910	101	4,011	1,726	195	111	2,032	535	5,427	4,077	325	13	10,377	324	12,517	29,261
0.00 to 0.30% Sulfur	705	14	719	62	0	0	62	61	0	806	78	5	950	-12	1,237	2,956
0.31 to 1.00% Sulfur	2,708	0	2,708	467	0	60	527	342	780	415	190	8	1,735	68	1,370	6,408
Greater Than 1.00% Sulfur	497	87	584	1,197	195	51	1,443	132	4,647	2,856	57	0	7,692	268	9,910	19,897

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District, March 31, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	PAD Dist. V West Coast
Residual Fuel Oil -- 0.00 to 0.30% Sulfur															
Refinery	229	44	273	40	0	0	40	47	0	1,001	4	2	1,054	36	619
Bulk Terminal	--	--	3,358	--	--	--	174	--	--	--	--	--	104	0	0
Total	--	--	3,631	--	--	--	214	--	--	--	--	--	1,158	36	619
Residual Fuel Oil -- 0.31 to 1.00% Sulfur															
Refinery	1,324	0	1,324	337	0	36	373	58	704	221	158	8	1,149	69	750
Bulk Terminal	--	--	5,070	--	--	--	220	--	--	--	--	--	3,299	0	591
Total	--	--	6,394	--	--	--	593	--	--	--	--	--	4,448	69	1,341
Residual Fuel Oil -- Greater than 1.00% Sulfur															
Refinery	983	27	1,010	1,152	267	109	1,528	154	3,492	2,102	58	0	5,806	256	5,208
Bulk Terminal	--	--	6,614	--	--	--	536	--	--	--	--	--	2,848	0	1,646
Total	--	--	7,624	--	--	--	2,064	--	--	--	--	--	8,654	256	6,856
Total															

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content, March 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to					From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	III
Residual Fuel Oil	0	0	0	0	0	263	0	537	0	325	212	117	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	400	0	325	75	0	0	0
Greater Than 1.00% Sulfur	0	0	0	0	0	263	0	137	0	0	137	117	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, March 1988
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	2,217	0	0	2,217
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Neutral Zone	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	2,217	0	0	2,217
Other OPEC				
Ecuador	0	0	685	685
Gabon	0	0	0	0
Indonesia	211	19	4	234
Iran	0	0	0	0
Nigeria	109	264	0	373
Venezuela	0	82	2,344	2,426
Subtotal Other OPEC	320	365	3,033	3,718
Other				
Angola	375	0	0	375
Australia	0	182	0	182
Bahamas	0	348	1,038	1,386
Bolivia	0	0	0	0
Brazil	586	306	0	892
Brunei	0	0	0	0
Canada	133	401	343	877
China, People's Republic	0	0	0	0
Congo	0	0	0	0
Egypt	0	0	0	0
France	0	171	0	171
Ghana	146	0	0	146
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	0	0	0
Netherlands	276	0	0	276
Netherlands Antilles	0	311	613	924
Norway	0	0	0	0
Oman	0	0	0	0
Peru	0	0	1,050	1,050
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	215	0	0	215
Syria	0	0	0	0
Trinidad	0	0	407	407
Tunisia	0	0	0	0
United Kingdom	0	429	0	429
Virgin Islands	867	675	985	2,527
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	0	128	1,396	1,524

See footnotes at end of table

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, March 1988 (continued)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Other Eastern Hemisphere	644	928	9	1,581
Subtotal Other	3,242	3,879	5,841	12,962
Total Imports	5,779	4,244	8,874	18,897

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, March 1988

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	5,231	3,650	8,771	17,652
Connecticut	0	249	101	350
Florida	0	453	1,124	1,577
Georgia	0	0	161	161
Maine	70	0	597	667
Maryland	0	89	408	497
Massachusetts	135	275	1,420	1,830
New Hampshire	0	0	328	328
New Jersey	2,045	658	1,159	3,862
New York	2,981	1,538	2,028	6,547
North Carolina	0	0	133	133
Pennsylvania	0	388	647	1,035
South Carolina	0	0	91	91
Vermont	0	0	8	8
Virginia	0	0	566	566
PAD District II	63	0	103	166
Michigan	63	0	14	77
Minnesota	0	0	49	49
North Dakota	0	0	40	40
PAD District III	175	594	0	769
Texas	175	594	0	769
PAD District V	310	0	0	310
Hawaii	310	0	0	310
All PAD Districts	5,779	4,244	8,874	18,897

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Appendix A

District Descriptions and Maps





Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

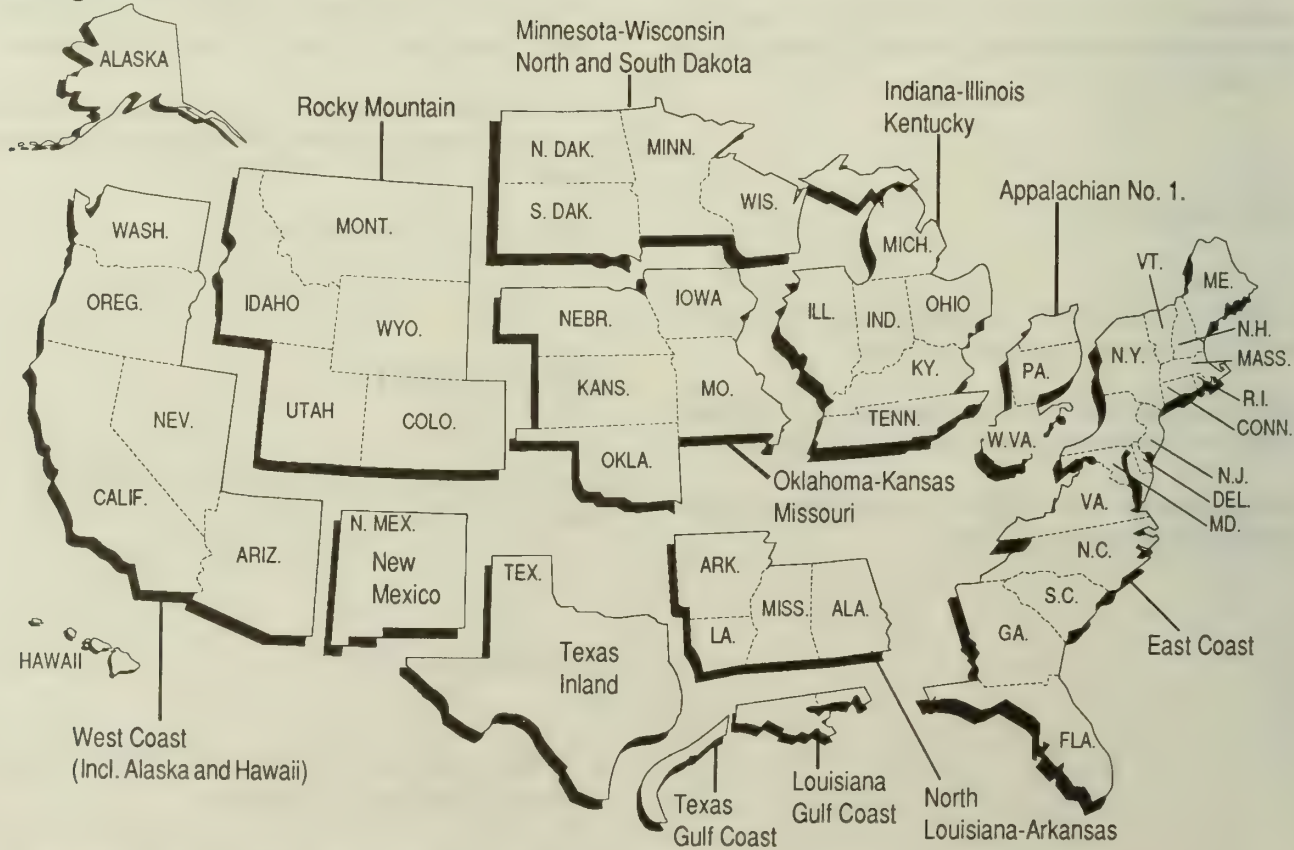
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

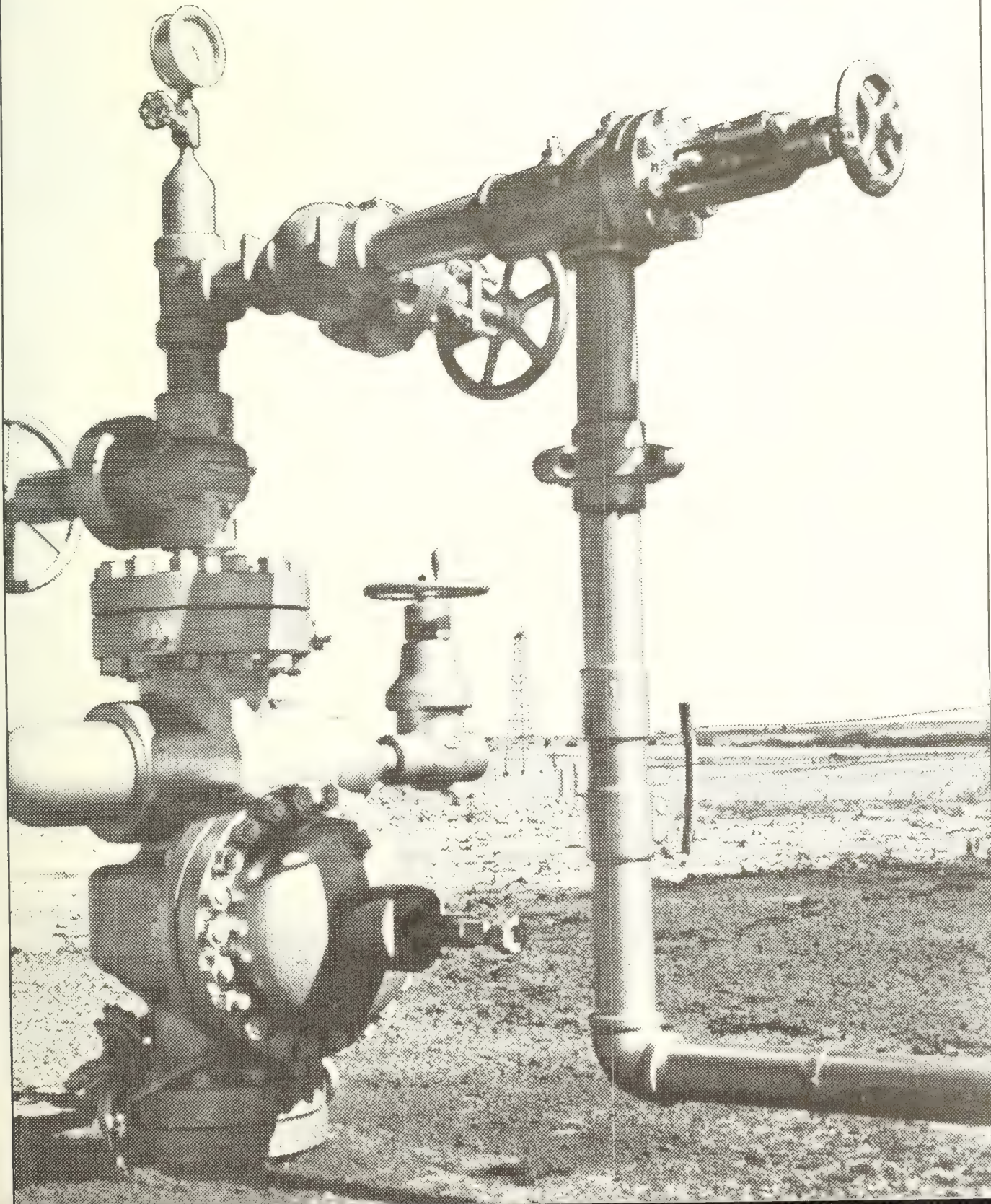


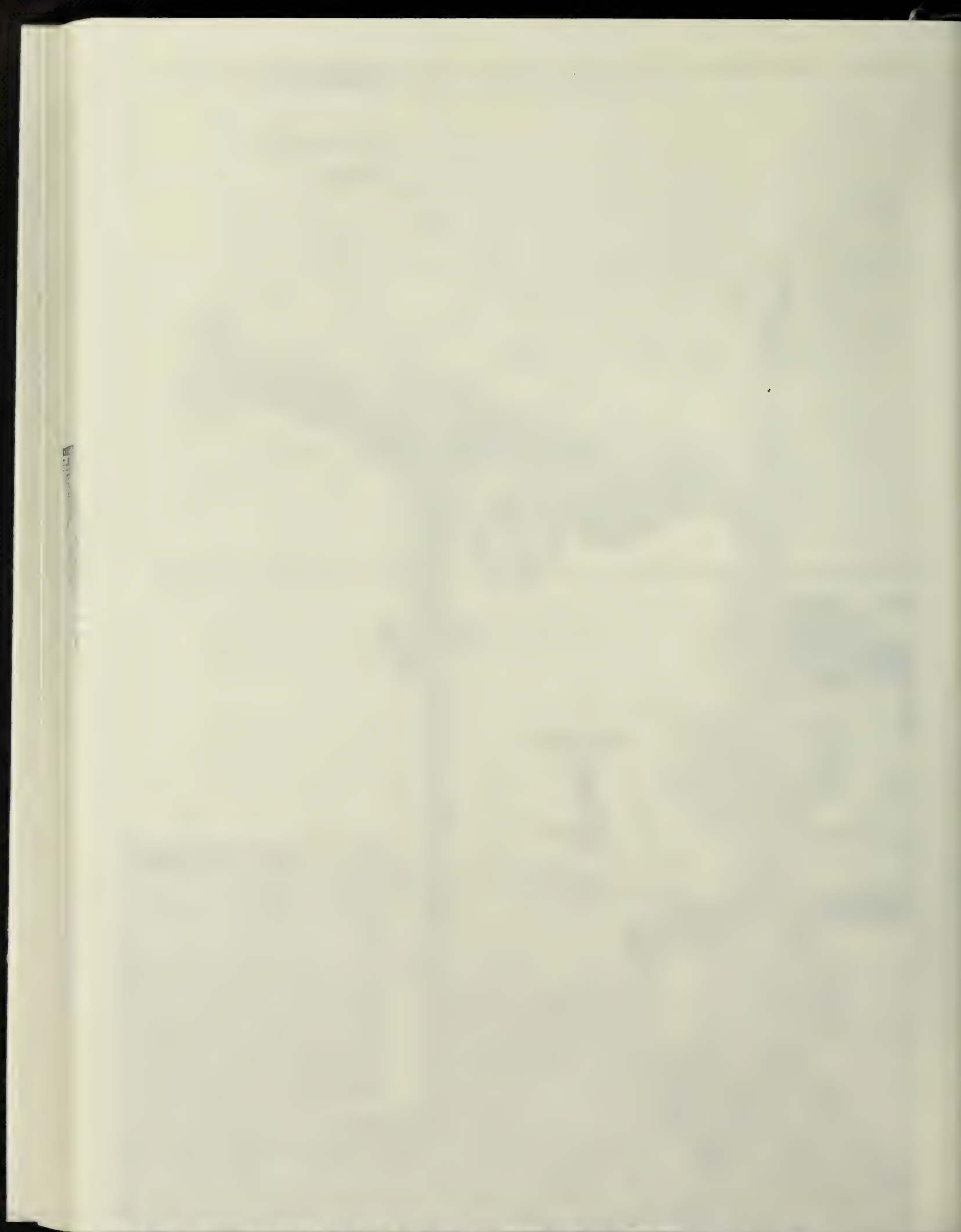
Refining Districts



Appendix B

Explanatory Notes





Appendix B

Explanatory Notes

Note 1: Data Collection Methodology

Background

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	Weekly Refinery Report
EIA-801	Weekly Bulk Terminal Report
EIA-802	Weekly Product Pipeline Report
EIA-803	Weekly Crude Oil Stocks Report
EIA-804	Weekly Imports Report
EIA-810	Monthly Refinery Report
EIA-811	Monthly Bulk Terminal Report
EIA-812	Monthly Product Pipeline Report
EIA-813	Monthly Crude Oil Report
EIA-814	Monthly Imports Report
EIA-816	Monthly Natural Gas Liquids Report
EIA-817	Monthly Tanker and Barge Movement Report
EIA-820	Annual Refinery Report

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect weekly data on basic refinery operations and on crude oil and major petroleum products stocks and imports. Data from the WPSRS are published in the *Weekly Petroleum Status Report* (WPSR) and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (PSM). A description of the WPSRS survey forms follows in Explanatory Note 1.1.

Forms EIA-810 through 814, 816, and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. These surveys are the primary source of data for the

"Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Explanatory Note 1.2.

Data are also obtained on magnetic tape from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Explanatory Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 using data from an external source. Estimates from the EIA's weekly sample surveys (inaugurated in April 1979) replaced the estimates from the external source for all but the imports series in January 1980, and replaced the imports estimates in June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports all shipments entering the United States. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe which includes all petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. The selected sample size is 153.

EIA-801: Based on the EIA-811 universe which includes every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. The selected sample size is 70.

EIA-802: Based on the EIA-812 universe which includes all product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. The selected sample size is 43.

EIA-803: Based on the EIA-813 universe which includes companies that carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The selected sample size is 79.

EIA-804: Based on the EIA-814 universe which covers each company, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The selected sample size is 83.

Sampling Method

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period begins and ends each Friday at 7 a.m. All canvassed firms must file reports by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month, (M_t), is divided by the amount reported by the sample of companies for the most recent month, (M_s). The result is multiplied by the amount reported by the sample of companies for the current week, (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly refinery inputs and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratios multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for selected products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rate

The response rate for the published estimates is usually between 97 and 100 percent of the sampled respondents.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other

survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 260 respondents report on the EIA-810.

EIA-811: Every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 320 respondents report on the EIA-811.

EIA-812: All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the EIA-812.

EIA-813: All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 180 respondents report on the EIA-813.

EIA-814: All companies, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. Approximately 1,500 respondents report on the EIA-814.

EIA-816: All facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 1,050 respondents report on the EIA-816.

EIA-817: All companies that have custody of crude oil or petroleum products transported by tanker or barge between

PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 50 respondents report on the EIA-817.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Every three years an extensive survey is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, Federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month, with the exception of the EIA-814 which is due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed for companies that do not respond to EIA Forms 810-813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the EIA-814 and 817 are not imputed.

Response Rate

The response rate is generally 99 to 100 percent by the time the data are first published. Nonrespondents are contacted in

writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data tapes are the only source of export statistics and are used to augment the import data collected by the EIA.

Import Statistics (IM-145)

Coverage

Census import statistics used in the PSM reflect both government and nongovernment imports of merchandise from foreign countries and U.S. possessions into the United States (the 50 States and the District of Columbia) without regard to whether or not a commercial transaction is involved. The following types of transactions are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Census export statistics used in the PSM reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

1. Merchandise shipped in-transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
2. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census. Exporters are required to file export documents with Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey descriptions and other details, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form EIA-814, *Monthly Imports Report*. In addition, imports of NGL's are obtained from the Census Bureau Tabulation IM-145. The Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. Additional data taken from the IM-145 are relatively small quantities of naphtha-type and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the Form EIA-814 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks. A negative result (-) would represent a buildup of stocks. For a description of survey forms used to make stock withdrawal or addition calculations, see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports, and stock withdrawals. Crude oil disposition is the sum of exports, refinery input, losses, stock additions, and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supply from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. All except four of the producing States report data monthly. These States are New York, Ohio, Pennsylvania, and Virginia. Estimates of monthly production for these States are made using methodologies explained in the next paragraph. After the end of each calendar year, the monthly numbers are updated using the annual reports of the State conservation agencies and the Minerals Management Service.

Table 11 of this publication provides information on crude oil production for the most recent month for which State values are available. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly State crude oil production data become available. In order to present more timely crude oil production values, the Energy Information Administration prepares a forecast estimate on the first day of the reference month and revised estimates approximately 75 days later which are based on historical production patterns and are summed to obtain national and Petroleum Administration for Defense District (PADD) level crude oil production values. The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. The forecast estimates are published in the *Weekly Petroleum Status Report* and are also used to calculate the preliminary estimates in the "Summary Statistics" section of the *Petroleum Supply Monthly*.

These forecast estimates are then replaced by the revised estimates in the next issue of the *Petroleum Supply Monthly*.

Table B1 is intended to provide further insight into EIA's estimates of monthly U.S. crude oil production. It shows (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon data collected on Form EIA-182, *Domestic Crude Oil First Purchase Report*, is

used in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the reference month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available 74 days after the reference month and includes imputation as

needed. A final revision is published concurrent with publication of EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is used in the *Petroleum Supply Annual*.

Table B1. U.S. Crude Oil¹ Production Estimates and Reported State² Data by Month (Thousand Barrels per Day)

	Month of Production																	
Date of Data Availability	12-86	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88
	Reported State Data ³																	
1-14-87	0																	
2-14-87	1808	0																
3-14-87	1881	1971	0															
4-14-87	7842	4704	1942	0														
5-14-87	7842	7606	4844	2033	0													
6-14-87	7842	7594	7291	4813	2057	0												
7-14-87	8317	7594	7291	7579	4618	2068	0											
8-14-87	8317	8376	8068	7667	7615	4654	2012	0										
9-14-87	8317	8380	8068	8152	8110	7218	4665	1999	0									
10-14-87	8317	8409	8290	8356	8288	8210	7672	4264	1997	0								
11-14-87	8317	8413	8291	8356	8412	8211	8139	7276	2971	1945	0							
12-14-87	8317	8409	8292	8369	8411	8255	8140	7752	7724	5008	2088	0						
1-14-88	8317	8409	8292	8369	8412	8255	8179	7756	7731	7252	4866	2152	0					
2-14-88	8317	8410	8294	8370	8412	8256	8191	8095	8034	8039	7703	5296	2127	0				
3-14-88	8317	8410	8294	8370	8412	8256	8191	8095	8071	8039	8190	8205	3208	2086	0			
4-14-88	8317	8362	8268	8342	8377	8218	8157	8133	8093	8090	8249	8286	8204	5111	2161	0		
5-14-88	8317	8480	8389	8464	8498	8336	8279	8251	8210	8205	8365	8401	8318	7156	5743	2151	0	0
	Producing States Without Reported Monthly Production ⁴																	
5-14-88	0	0	0	0	0	0	0	0	0	0	0	0	0	9	15	30	33	33
	Month of Production																	
Type of Estimate	12-86	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88
	Production Estimate																	
Original ⁵	8711	8354	8384	8336	8361	8296	8303	8287	8204	8162	8281	8283	8348	8395	8353	8306	8269	8240
Interim ⁶	8348	8477	8318	8349	8426	8305	8263	8242	8190	8190	8293	8330	8340	8245	8376	8347		
Form EIA-182																		
Initial	7989	8034	8079	8214	8287	8149	8168	8078	8022	8110	8151	8162	8144	8017	8239	8138		
Revised	8142	8232	8210	8266	8306	8161	8178	8082	8032	8084	8153	8173	8180	8048	8206			
Final ⁷	8352																	

¹ Includes lease condensate.

² Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

³ Includes EIA prorated monthly production in 1986 (annual average of 50 thousand barrels per day) for four States (New York, Ohio, Pennsylvania, and Virginia) for which only annual State data are available.

⁴ New York, Ohio, Pennsylvania, and Virginia are counted as having monthly reported data in 1986 after their annual reports were received.

⁵ Original estimates in 1986 were made on a quarterly cycle. For example, January, February and March 1986 estimates were made at the end of December 1985. Original estimates after December 1986 were made on the first of each month.

⁶ All 1986 interim estimates were made on January 7, 1987. January and February 1987 interim estimates were made on March 5 and April 6, 1987, respectively. Interim estimates after February 1987 were made 44 days after the end of the production month.

⁷ Published in the *Petroleum Supply Annual* 1986 DOE/EIA 0340(86)/2.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries reported for all refineries on Form EIA-810, *Monthly Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, and the Virgin Islands, which are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Product supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production net having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in-transit is also included. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers. For survey descriptions and other details, see Explanatory Note 1.2.

Note 6: Average Stock Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, residual oil, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels are described below.

The graphs displaying inventory levels of crude oil and petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the report inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases, were derived using monthly data from 1979-1985.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the *average range* is twice the standard deviation.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other details, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the "Summary Statistics" section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition. statistics on the referenced line appear in Table 1 of the "Detailed Statistics," except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Gross Imports Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted for Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- Crude Losses and Product Supplied appear as labeled in Table 4.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.
- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, ethylene, propane, propylene, butane, butylene, and isobutane. The statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases. The statistics on the referenced line are aggregated from Table 4 of the "Detailed Statistics," except where noted.

- Total production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.
- Line (5): *SPR Imports* are reported on survey Form EIA-814.
- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude oil losses minus crude oil product supplied in Table 2.
- Line (14): Natural Gas Plant Liquids (NGPL) *Field Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.
- Line (15): NGPL *Net Imports* equals the sum of the imports of pentanes plus minus the exports of pentanes plus in Table 2.
- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the stock withdrawal (+) or addition (-) of pentanes plus in Table 2.
- Line (17): *Total NGPL Supply* equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids *Stock Withdrawal (+) or Addition (-)* equals the aggregate stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components in Table 2.
- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.
- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).
- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of natural gas

liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus field production of other liquids; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.
- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.
- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).
- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of natural gas liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus total field production of other liquids; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.
- Line (29): *Refined Products Stock Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.
- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.
- Lines (31) through (34): Equal the respective products supplied in Table 2.
- Line (35): *Other Products Supplied* equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, naphtha <400 Deg. F. for petrochemical feedstock use, other oils >400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products supplied in Table 2.
- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.
- The sum of lines (38) and (39): *Stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by

the *Strategic Petroleum Reserve* equals ending stocks of crude oil in Table 2.

- Line (43): *Stocks of Finished Refined Products* equals the sum of liquefied petroleum gases and finished petroleum products stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1,462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the "Summary Statistics," is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the "Summary Statistics." This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108.
- Other Petroleum Products: 1983 - 248.

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1981 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA

and API estimates of "recast" motor gasoline product supplied.

EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ¹
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

¹FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied (Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,83
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: Natural Gas Liquids Reporting Changes

Beginning in January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record-keeping practices used by the industry. The following table shows the product category under the new and old basis. Four PSRS surveys were modified beginning in January 1984. They were:

- EIA-810 *Monthly Refinery Report*
- EIA-811 *Monthly Bulk Terminal Report*
- EIA-812 *Monthly Product Pipeline Report*
- EIA-816 *Monthly Natural Gas Liquids Report*

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Adjustments are applied to NGL imports data to make them consistent with the revised reporting system (See Explanatory Note 14).

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
1979-1983 Product Basis					
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Note 14: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquids (NGL) supply data, moving from a nine-product slate basis to a five-component slate basis that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first six months of 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by

Table B5. Algorithm for Allocating NGL Imports/Exports (Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline An Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	60	40	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	80	20	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15: Addition of Crude Oil Pipeline Movements Data

Beginning in January 1985, inter-PAD District pipeline movements of crude oil were included in the PSM. Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the PSM that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6-10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products." 1985 crude oil imports and unfinished oil imports in Tables 6 through 10 are now reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts." A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes net movements by pipeline as well as by tanker and barge.

Note 16: 1986 Changes in Petroleum Industry Reporting

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks ¹ (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGL's & LRG's	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

¹ Stocks as of December 31, 1985.

Also, beginning in January 1986, a major integrated petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities have been combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which will show a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes have been made to tables in the PSM either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes are:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
 - Alaskan crude oil receipts are now shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
 - The "petrochemical feedstock use" and "other use" are no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
 - Imports of unfinished oils are now separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" are shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely and consistent energy information.

Changes in Data Collection and Reporting Systems

- Fresh feed input to catalytic cracking units, hydrocracking units and cokers were added to the Form EIA-810, *Monthly Refinery Report*.

Changes in Publications

- The "Appalachian No. 2" Refining District has been combined with the "Indiana, Illinois, Kentucky," Refining District. This affects PSM Tables 12-15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units and cokers are included in Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during

1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all Foreign Trade Zone facilities located within the 50 United States are considered domestic entities and are included in statistics in the PSM. The principal differences in the PSM data series are about a 1 percent increase in crude oil imports and a 3 percent decrease in product imports.



Appendix C

Impact of
Resubmissions
on Major
Series, 1988

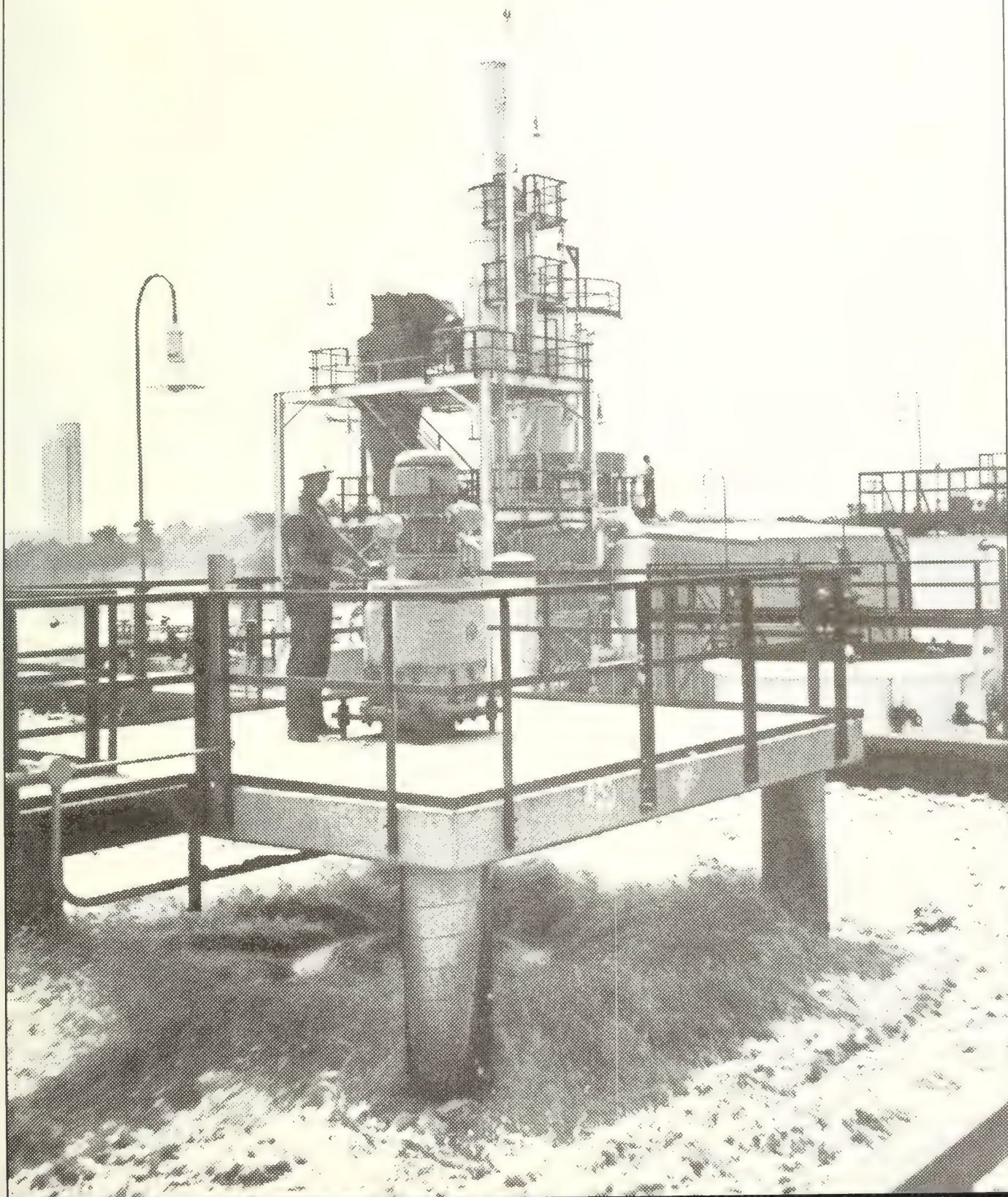




Table C1. Impact of Resubmissions on Major Series, 1988
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs													
Crude Oil	12,975	0	--	--	--	--	--	--	--	--	--	--	0
LPG's	366	-8	--	--	--	--	--	--	--	--	--	--	8
Production													
LPG's	1,723	-7	--	--	--	--	--	--	--	--	--	--	-7
Finished Motor Gasoline	6,723	7	--	--	--	--	--	--	--	--	--	--	7
Naphtha-Type Jet Fuel	184	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	1,231	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene	104	0	--	--	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	3,008	0	--	--	--	--	--	--	--	--	--	--	0
Residual Fuel Oil	1,009	0	--	--	--	--	--	--	--	--	--	--	0
Imports													
Crude Oil	4,619	0	--	--	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline	324	0	--	--	--	--	--	--	--	--	--	--	0
Naphtha-Type Jet Fuel	3	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	80	0	--	--	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	355	0	--	--	--	--	--	--	--	--	--	--	0
Residual Fuel Oil	737	0	--	--	--	--	--	--	--	--	--	--	0
Other Products	556	0	--	--	--	--	--	--	--	--	--	--	0
Stocks (Thousand Barrels)													
Crude Oil	345,479	84	--	--	--	--	--	--	--	--	--	--	84
Unfinished Oils	95,338	0	--	--	--	--	--	--	--	--	--	--	0
LPG's	80,741	-1,958	--	--	--	--	--	--	--	--	--	--	-1,958
Total Motor Gasoline	239,464	237	--	--	--	--	--	--	--	--	--	--	237
Naphtha-Type Jet Fuel	8,366	3	--	--	--	--	--	--	--	--	--	--	3
Kerosene-Type Jet Fuel	37,912	-2	--	--	--	--	--	--	--	--	--	--	-2
Distillate Fuel Oil	127,155	284	--	--	--	--	--	--	--	--	--	--	284
Residual Fuel Oil	46,628	-60	--	--	--	--	--	--	--	--	--	--	-60
Product Supplied													
LPG's	2,069	64	--	--	--	--	--	--	--	--	--	--	64
Finished Motor Gasoline	6,679	-1	--	--	--	--	--	--	--	--	--	--	-1
Naphtha-Type Jet Fuel	173	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	1,360	0	--	--	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	3,517	-9	--	--	--	--	--	--	--	--	--	--	-9
Residual Fuel Oil	1,578	2	--	--	--	--	--	--	--	--	--	--	2
Major Products Supplied	15,376	57	--	--	--	--	--	--	--	--	--	--	57

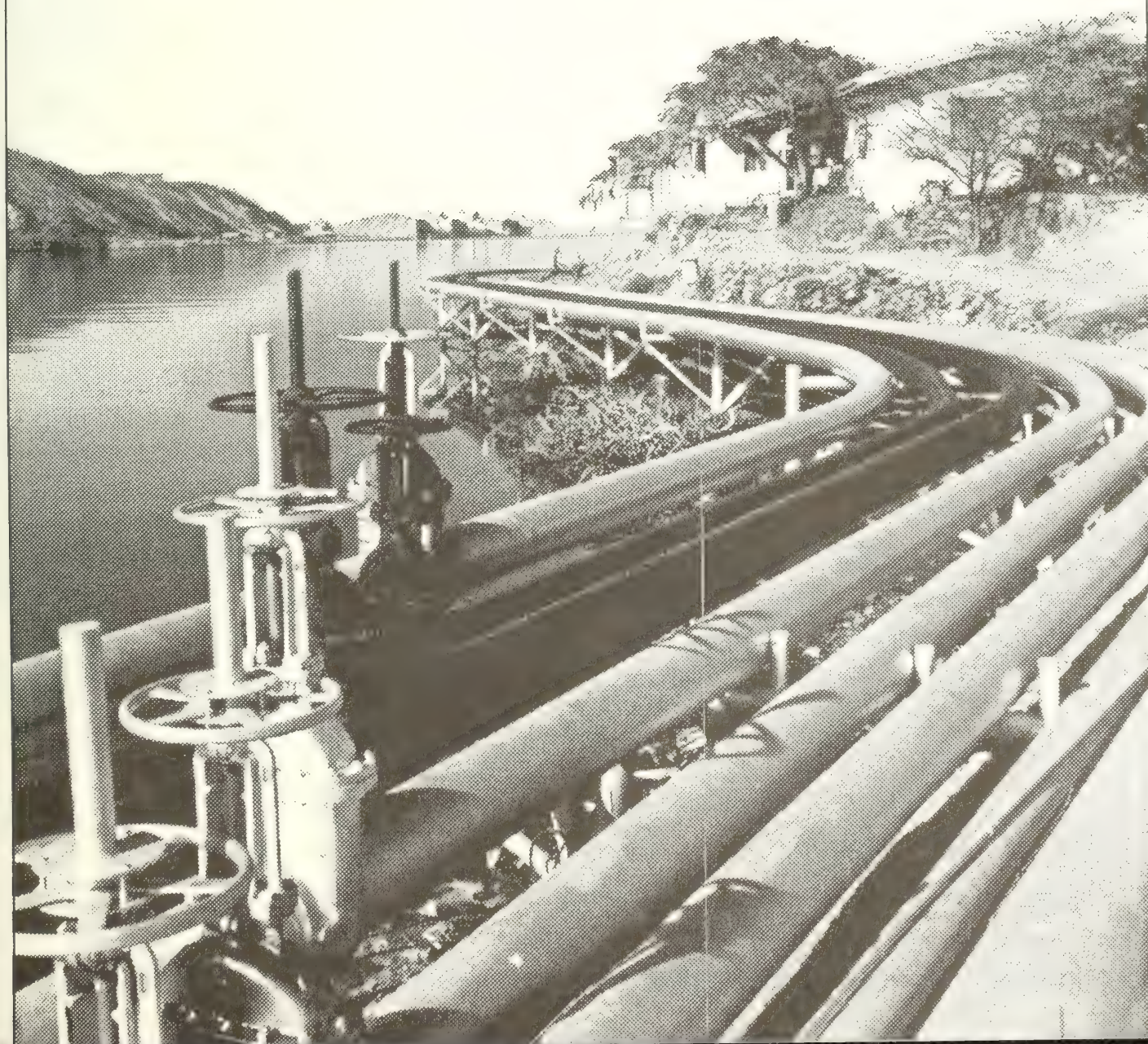
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

121012

Glossary





Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}(\text{CH})_n\text{OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr.}_{60^\circ\text{F}/60^\circ\text{F}}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cut-back asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C₄H₈), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 degrees F to 750 degrees F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. See *Motor Gasoline (Finished)*.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 degrees F to 1000 degrees F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See *Butane*.

Isohexane. A saturated branch-chain hydrocarbon, (C₆H₁₄). It is a colorless liquid that boils at a temperature of 156.2 degrees F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C₄), an alkylation process feedstock, and normal pentane and hexane into

isopentane, (C₅), and isohexane, (C₆), high-octane gasoline components.

Isopentane. See *Natural Gasoline and Isopentane*.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10-percent recovery point, a final boiling point of 572 degrees F, and a minimum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 degrees F at the 10-percent recovery point and a final maximum boiling point of 572 degrees F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 degrees F to 650 degrees F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants"

includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. A product of hydrotreating, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a range in distillation temperatures from 122 to 158 degrees F at the 10-percent recovery point and from 365 to 374 degrees F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.

Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Naphtha-type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 degrees F at the 20-percent recovery point and 470 degrees F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemi-

cals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F" and "Other oils over 400 degrees F."

Naphtha-Less Than 400 Degrees F. A naphtha with a boiling range of less than 400 degrees F that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. Oils with a boiling range of over 400 degrees F that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 degrees F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank and is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per barrel (42 U.S. gallons).

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C₆H₅CH₃), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas, kerosene, light and heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 degrees F (D1321)-60 maximum. Viscosity at 210 degrees F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscos-

ity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Working Storage Capacity. The volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, $(C_6H_4Y(CH_3)_2)$, produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

Energy Facts 1986 is available for \$2.25 from:

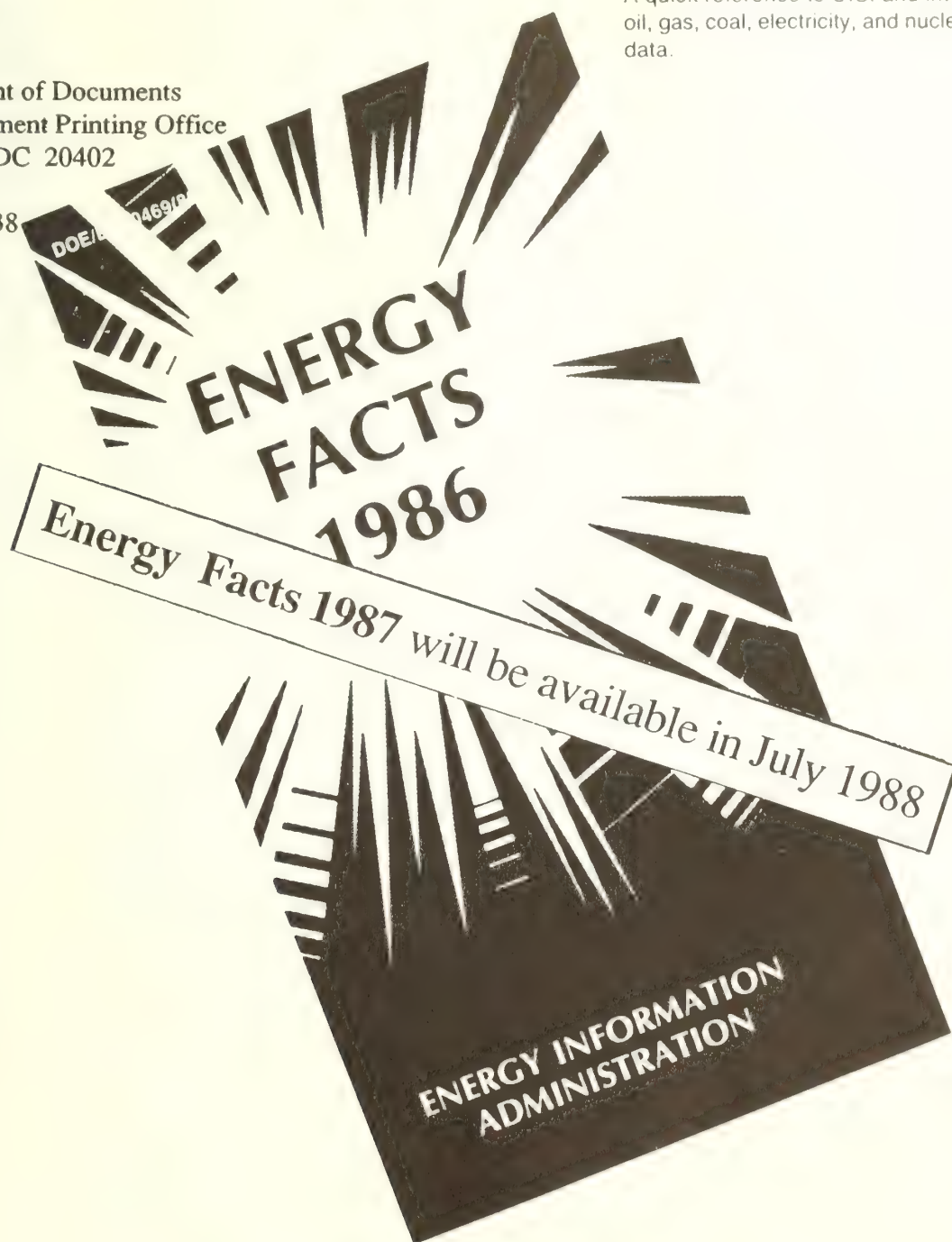
Energy Information Administration
National Energy Information Center, EI-231
Washington, DC 20585

(2) 586-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

(2) 783-3238

A quick reference to U.S. and international
oil, gas, coal, electricity, and nuclear energy
data.



AFTER THE DECLARATION OF INDEPENDENCE OUR FOUNDING FATHERS WROTE SOMETHING EVEN MORE IMPORTANT.

Ten years after the signing of the Declaration of Independence our founding fathers created what historians have called the greatest single document struck off by the hand and mind of man.



Our founding fathers created the Constitution of the United States.

For the first time in history, power was granted by the people to the government, and not by the government to the people.

The freedom unleashed by the Constitution allowed Americans to develop their talents and abilities to the fullest. And attain what is now known the world over as the *American Dream*.

As we commemorate the Bicentennial of the Constitution, there is no better way for you as an American to reaffirm the principles for which our country stands than to learn more about the Constitution.

The words we live by.

THE CONSTITUTION

The words we live by

To learn more about the Constitution write: Constitution, Washington, D.C. 20599. The Commission on the Bicentennial of The U.S. Constitution. 

Energy Information Administration
U.S. Department of Energy
Forrestal Building, EI-231
Washington, DC 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL

OC.

3.11/5:
88/4

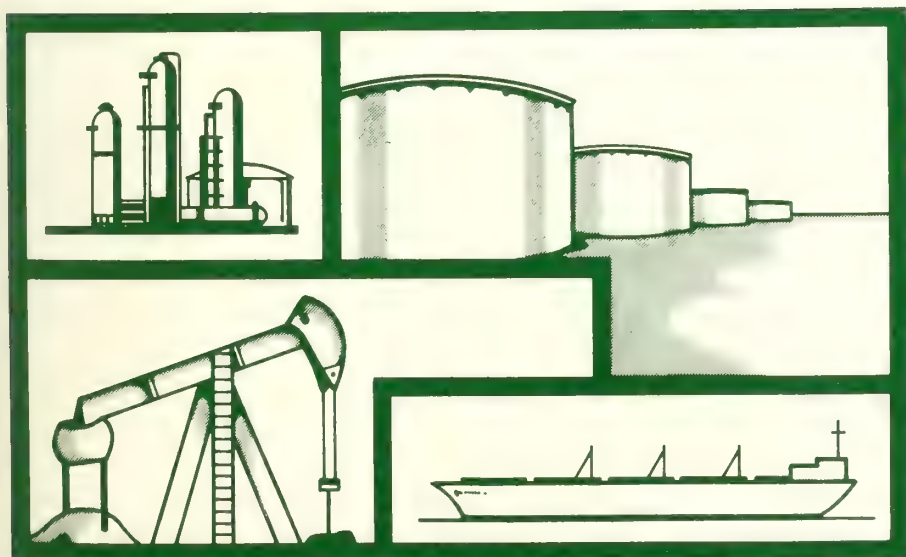
38/04)

Final 1987 Statistics
in Summary Section
See Notice Inside Cover

Energy Information Administration

Petroleum Supply Monthly

April 1988



This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, EI-231
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, DC 20585
(202)586-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202)783-3238

We thank the following for the use of their photographs and illustrations in this report.

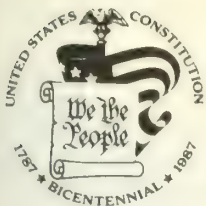
Cities Service Co., page ix (courtesy of the American Petroleum Institute).
Champlin Petroleum Co., page xii (courtesy of the American Petroleum Institute).
Marathon Oil Co., page xiii (courtesy of the American Petroleum Institute).
Champlin Petroleum Co., page xv (courtesy of the American Petroleum Institute).
Standard Oil Co., page 1 (courtesy of the American Petroleum Institute).
PPG Industries, Inc., page 69 (courtesy of the American Petroleum Institute).
Standard Oil Co., page 73 (courtesy of the American Petroleum Institute).
Texaco Inc., page 91 (courtesy of the American Petroleum Institute).
Atlantic Richfield Co., page 95 (courtesy of the American Petroleum Institute).

Released for printing: June 22, 1988

Important Notice

As required by Federal Government regulation, the Energy Information Administration (EIA) is conducting a review of its publications mailing list. If you are on the EIA mailing list, you will receive a renewal notice, which must be filled out and returned to us. If we do not receive a response by August 31, 1988, your name will be removed from the EIA mailing list. If you have any questions, you may call the National Energy Information Center at (202) 586-8800.

Note: This review **does not** apply to paid subscription lists maintained by the U.S. Government Printing Office.



DOE/EIA-0109(88/04)
Distribution Category UC-98

Petroleum Supply Monthly

April 1988

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

The Library of the
408 1 0 688
University of Illinois
at Urbana Champaign

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), *Weekly Coal Production* (WCP), and *Electric Power Monthly* (EPM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202)586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a holiday) after 5:00 p.m. Monthly petroleum supply data for the current month are also provided and are updated by 5:00 p.m. on the 24th of each month. Monthly statistics from the *Electric Power Monthly* are available on or about the first working day of each month. Questions or comments on petroleum data should be directed to T.C. Swann at (202)586-1155. Questions or comments on coal data should be directed to Hans Becker at (202)586-6874. Questions on electricity data should be directed to Dean Fennell at (202)586-5311.

Access Instructions:

- 1) DIAL (202)586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```
***                               ***
***                               ***
***   WELCOME TO THE             ***
***   ENERGY INFORMATION ADMINISTRATION ***
***   ELECTRONIC PUBLICATION SYSTEM ***
***                               ***
```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT
PSMR - PETROLEUM SUPPLY MONTHLY
STKS - PSM STATE STOCKS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT
EPMS - U.S. ELECTRIC POWER STATISTICS

PLEASE ENTER THE DESIRED REPORT ID... **PSMR**

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

\$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED MONTHLY STATISTICS FROM PETROLEUM SUPPLY MONTHLY (PSM) SYSTEM. THIS SYSTEM WILL DISPLAY THE MOST RECENT PSM DATA FOR TABLES 4, 11, 18, AND 24. PLEASE TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:

- 7 Data Bits
- 1 Stop Bit
- Even Parity

EIA Petroleum Data Available In Machine-Readable Files

Petroleum supply statistics are available on five magnetic tapes. One tape contains final 1983 through 1986 petroleum supply statistics by month, taken from the *Petroleum Supply Annual*; the second contains preliminary 1987 and 1988 statistics to date by month, from the *Petroleum Supply Monthly*. Three additional tapes contain current and historical statistics on imports of crude oil and petroleum products into the United States and Puerto Rico. The current import tape contains preliminary 1987 and 1988 statistics to date by month. The two historical import tapes contain final statistics by month. One tape contains statistics for the years 1977 through 1985; the second contains 1986 statistics. The current tapes are updated each month. All tapes are fully documented.

Tapes are sold for \$200 each and should be referenced by National Technical Information Service (NTIS) number:

<i>Petroleum Supply Annual</i> -- 1983-1987	PB88-206719
<i>Petroleum Supply Monthly</i> -- Preliminary (1988)	PB88-207501
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985	PB87-147781
Oil Imports into the United States and Puerto Rico, Annual -- 1986-1987	PB88-207485
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1988)	PB88-207493

To order, contact:

National Technical Information Service (NTIS)
Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Stephen Patterson	(202) 586-5994
Supply and Disposition	Stephen Patterson	(202) 586-5994
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Nancy Masterson	(202) 586-8393
Imports	Claudette Graham	(202) 586-9649
Exports	T. C. Swann	(202) 586-1155
Stocks	Beverly Harris	(202) 586-5130
Transportation	Chris Gray	(202) 586-8995

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Contents

	Page
Highlights	xi
Petroleum Focus	
Petroleum Supply Summary	xvii
Tables	
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview	2
S2. Crude Oil Supply and Disposition	6
S3. Crude Oil and Petroleum Product Imports	8
S4. Finished Motor Gasoline Supply and Disposition	11
S5. Distillate Fuel Oil Supply and Disposition	13
S6. Residual Fuel Oil Supply and Disposition	15
S7. Liquefied Petroleum Gases Supply and Disposition	17
S8. Other Petroleum Products Supply and Disposition	18
Sources of Summary Statistics	19
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I	28
7. PAD District II	29
8. PAD District III	30
9. PAD District IV	31
10. PAD District V	32
Production of Crude Oil	
11. Production of Crude Oil (Including Lease Condensate) by PAD District and State	33
Natural Gas Processing	
12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District	34
Refinery Operations	
13. Refinery Input of Crude Oil and Petroleum Products by PAD District	35
14. Refinery Production of Petroleum Products by PAD District	36
15. Percent Refinery Yield of Petroleum Products by PAD District	37
Imports of Crude Oil and Petroleum Products	
16. Imports of Crude Oil and Petroleum Products by PAD District	38
17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District	39
18. Imports of Crude Oil and Petroleum Products by Source and PAD District	40
19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District	45
Exports of Crude Oil and Petroleum Products	
20. Exports of Crude Oil and Petroleum Products by PAD District	51
21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District	52
22. Exports of Crude Oil and Petroleum Products by Destination	53
23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination	55

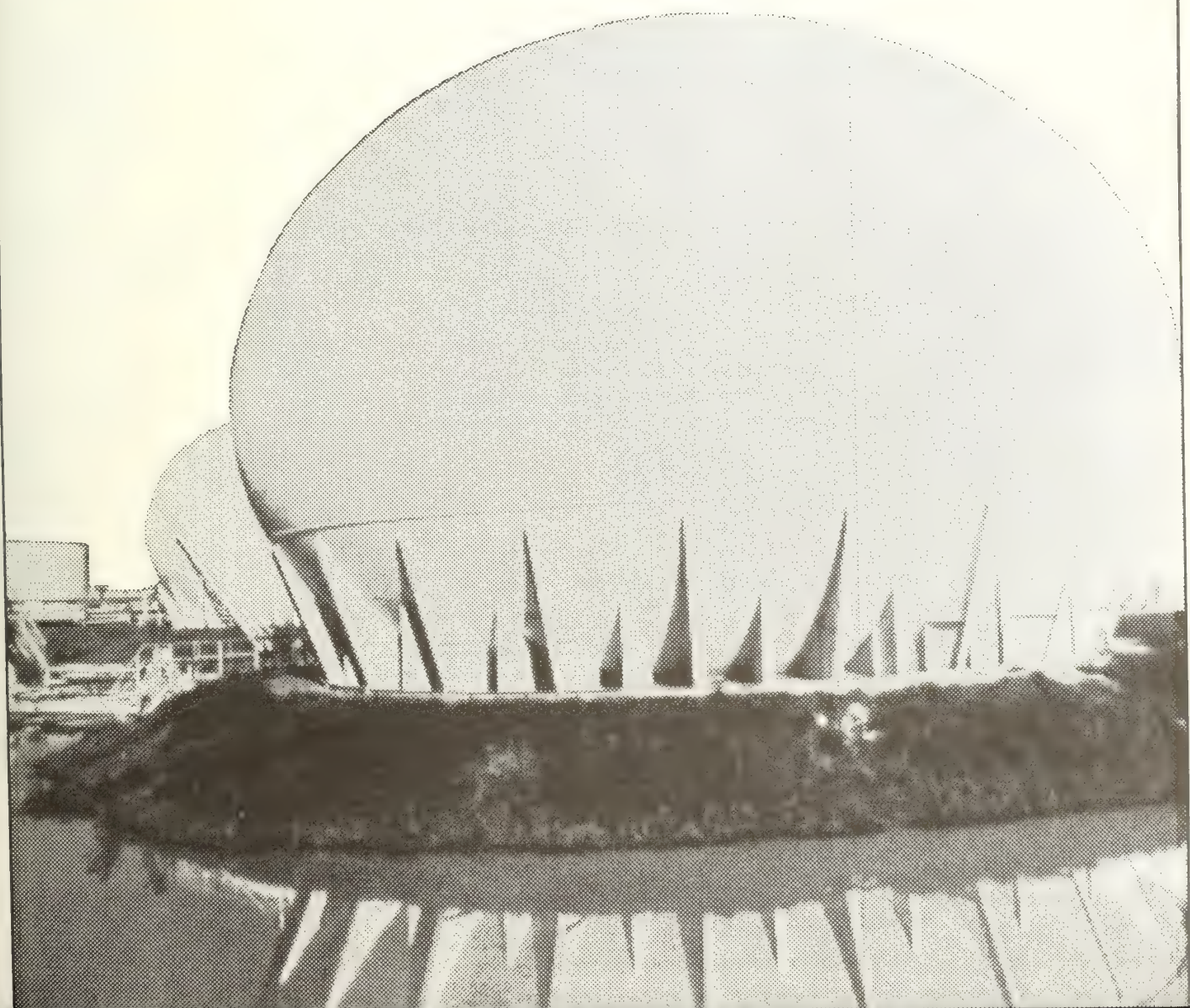
	Page
Stocks	
24. Stocks of Crude Oil and Petroleum Products by PAD District	57
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	62
Movements of Crude Oil and Petroleum Products	
26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	63
27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts	64
28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts	64
29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	65
Residual Fuel Oil by Sulfur Content	
30. Production of Residual Fuel Oil by Sulfur Content by PAD District	66
31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District	66
32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content ...	66
33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin	67
34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry	68
Illustrations	
S1. Petroleum Overview	4
S2. Petroleum Products Supplied	4
S3. Crude Oil Supply and Disposition	5
S4. Crude Oil Ending Stocks	5
S5. Finished Motor Gasoline Supply and Disposition	10
S6. Motor Gasoline Ending Stocks	10
S7. Distillate Fuel Oil Supply and Disposition	12
S8. Distillate Fuel Oil Ending Stocks	12
S9. Residual Fuel Oil Supply and Disposition	14
S10. Residual Fuel Oil Ending Stocks	14
S11. Liquefied Petroleum Gases Supply and Disposition	16
S12. Liquefied Petroleum Gases Ending Stocks	16
Appendices	
A. District Descriptions and Maps	71
B. Explanatory Notes	75
C. Impact of Resubmissions on Major Series, 1988	93
Glossary	
Definitions of Petroleum Products and Other Terms	97

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1985
Motor Gasoline Outlook for Summer 1985	February 1985
Refinery Capacity Trends and Outlook	March 1985
Mid-Year Petroleum Review	May 1985
Timeliness and Accuracy of Petroleum Supply Data	June 1985
Distillate Fuel Oil Trends	July 1985
World Oil Price and Inventory Cycles	August 1985
Petroleum Storage Technology	August 1985
Comparison of Independent Statistics on Petroleum Supply	September 1985
U.S. Petroleum Developments: 1985	November 1985
Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988
Motor Gasoline Trends Through 1987	February 1988

Highlights



[Faint, illegible vertical text]

Highlights

Total U.S. demand (measured as product supplied) for petroleum products dropped nearly 1.1 million barrels per day in April 1988 to 16.4 million barrels per day, nearly 0.1 million barrels below the level of a year ago. Over 60 percent of the total decrease in product supplied this month was due to an unusually large (0.7 million barrels per day) drop in distillate demand. The disposition of the other major products generally followed observed seasonal trends.

Other April highlights include the following:

- Total product stocks increased 13.5 million barrels, from 659.9 million barrels at the end of March to 673.5 million barrels at the end of April.
- Refinery utilization rose again this month, increasing 0.5 percent to 84.0 percent.
- As a result of a new, expansive marketing strategy implemented by Iraq, crude oil imports from Iraq during March and April 1988 are triple the average annual rate for 1987.

Product Supplied

A change in collection procedures for Federal diesel fuel tax implemented April 1 was related to the large decrease in distillate demand during April (Table H1). Distillate demand decreased from 3.5 million barrels per day in March to 2.9 million barrels per day in April. The unusually high demand for distillates in March reflected stockpiling by farmers, oil drilling companies, and other off-road users to avoid up-front payment of the 15.1 cents per gallon excise tax on all diesel fuel after April 1. Along with a normal seasonal drop in demand, these higher diesel fuel inventories held by end users reduced deliveries of distillates from the primary system during April. Distillate demand -- which for the first quarter of 1988 averaged about 8 percent higher than the first quarter of 1987 -- during April 1988 was nearly 4 percent lower than the demand during April 1987.

The drop in the demand for distillate fuel oil this month is also evident in distillate stock activity. From a withdrawal rate of nearly 0.7 million barrels per day in March, distillate stocks

Table H1. Production, Imports, Stock Change, and Product Supplied: April Versus March 1988
(Million Barrels per Day)

Product Category	April 1988				March 1988				Difference (April minus March)			
	Production	Imports	Stock Change ¹	Product Supplied	Production	Imports	Stock Change ¹	Product Supplied	Production	Imports	Stock Change ¹	Product Supplied
Motor Gasoline	6.9	0.3	0.1	7.4	6.7	0.3	0.3	7.3	0.2	(s)	-0.2	0.1
Distillate Fuel Oil	2.9	0.2	-0.2	2.9	2.7	0.2	0.7	3.5	0.2	(s)	-0.8	-0.7
Residual Fuel Oil	1.0	0.5	(s)	1.3	0.9	0.6	(s)	1.4	(s)	-0.1	(s)	-0.2
Propane	0.9	0.1	-0.3	0.6	0.9	0.1	(s)	0.9	(s)	(s)	-0.3	-0.3
Asphalt/Road Oil	0.4	(s)	-0.1	0.4	0.3	(s)	-0.1	0.3	0.1	(s)	(s)	0.1
Total Products	16.5	1.9	-0.5	16.4	16.3	1.9	0.7	17.5	0.2	(s)	-1.2	-1.1

¹ A positive number indicates a stock decrease and a negative number indicates a stock increase.

^(s) Less than 50,000 barrels per day.

Note: Components may not add due to independent rounding.

were replenished at a rate of almost 0.2 million barrels per day during April.

Residual fuel oil continued to follow seasonal patterns in April as demand decreased about 0.2 million barrels per day to 1.3 million barrels per day. Production and stock change showed marginal differences from last month, but average imports of residual fuel oil fell well over 0.1 million barrels per day.

Propane demand in April averaged 0.6 million barrels per day, falling 0.3 million barrels per day from the level in March. Lower seasonal demand is primarily responsible for the decrease, although extended shutdowns at some petrochemical plants have also slowed deliveries. With demand falling and production and imports remaining fairly steady during April, stocks were built up at a rate of 0.3 million barrels per day.

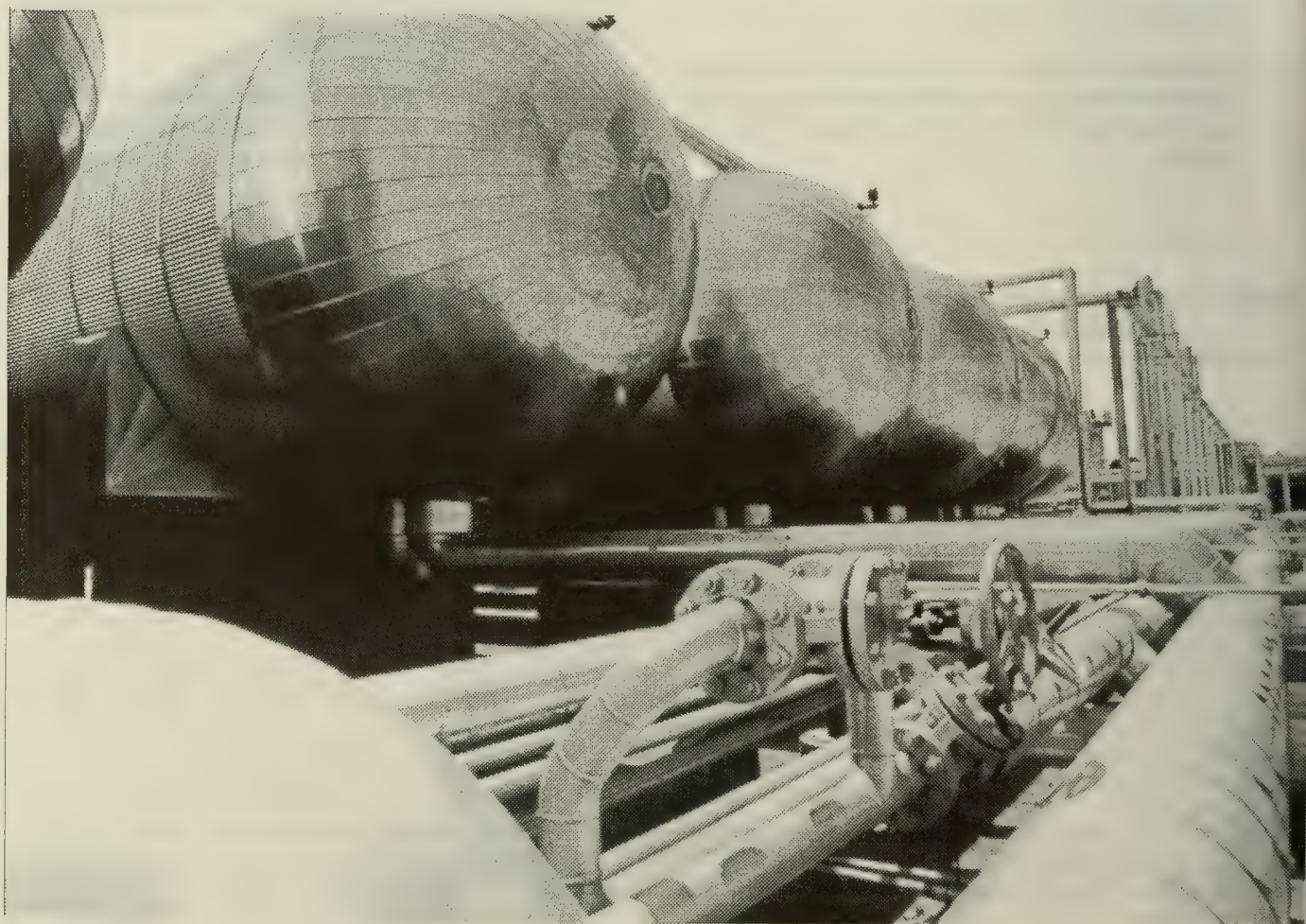
The demand for motor gasoline in April averaged 7.4 million barrels per day, up 0.1 million barrels per day from March. This is the third consecutive monthly increase in motor

gasoline demand and the third consecutive month it has exceeded 7.0 million barrels per day. Contributing to the increase in demand was motor gasoline production, which increased 0.2 million barrels per day to 6.9 million barrels per day. The increase in both production and demand this month are consistent with observed trends for this time of year.

Asphalt and road oil demand increased during April. From 0.3 million barrels per day in March, demand for asphalt and road oil increased nearly 0.1 million barrels per day in April to 0.4 million barrels per day. A seasonal increase in road construction and maintenance activity is largely responsible for the growth in demand during April.

Product Stocks Increase

Total petroleum product stocks rose 13.5 million barrels in April and ended the month at 673.5 million barrels. Stocks of propane and distillates experienced the biggest increases and



Following 4 months of drawdown, stocks of propane increased in April by 8.3 million barrels and reached 37.5 million barrels by the end of the month.

together account for 98 percent of the total product buildup. End-of-month propane stocks jumped 8.3 million barrels in April to 37.5 million barrels. This 0.3 million barrel-per-day increase matches the 0.3 million barrel-per-day decrease in demand for propane. Distillate stocks, which fell 20.3 million barrels during March, rebounded somewhat in April. From 89.3 million barrels at the end of March, distillate stocks rose 5.0 million barrels to finish April at 94.3 million barrels. Increased production and decreased demand (related to a change in the tax law affecting diesel fuel) led to the turnaround in distillate stocking activity.

Refinery Utilization Up

For the second consecutive month, refinery utilization increased. From a rate of 83.5 percent in March, utilization increased to 84.0 percent in April wholly because of a nearly 0.1 million barrel-per-day increase in gross refinery inputs. Gross inputs to crude oil distillation units averaged 13.3

million barrels per day in April, while operable capacity remained unchanged at 15.9 million barrels per day. Downstream activity also rose this month. Fresh feed inputs to catalytic cracking, catalytic hydrocracking, and coking units averaged 6.7 million barrels per day, 0.1 million barrels per day above the level in March.

Iraqi Crude Oil Imports Up

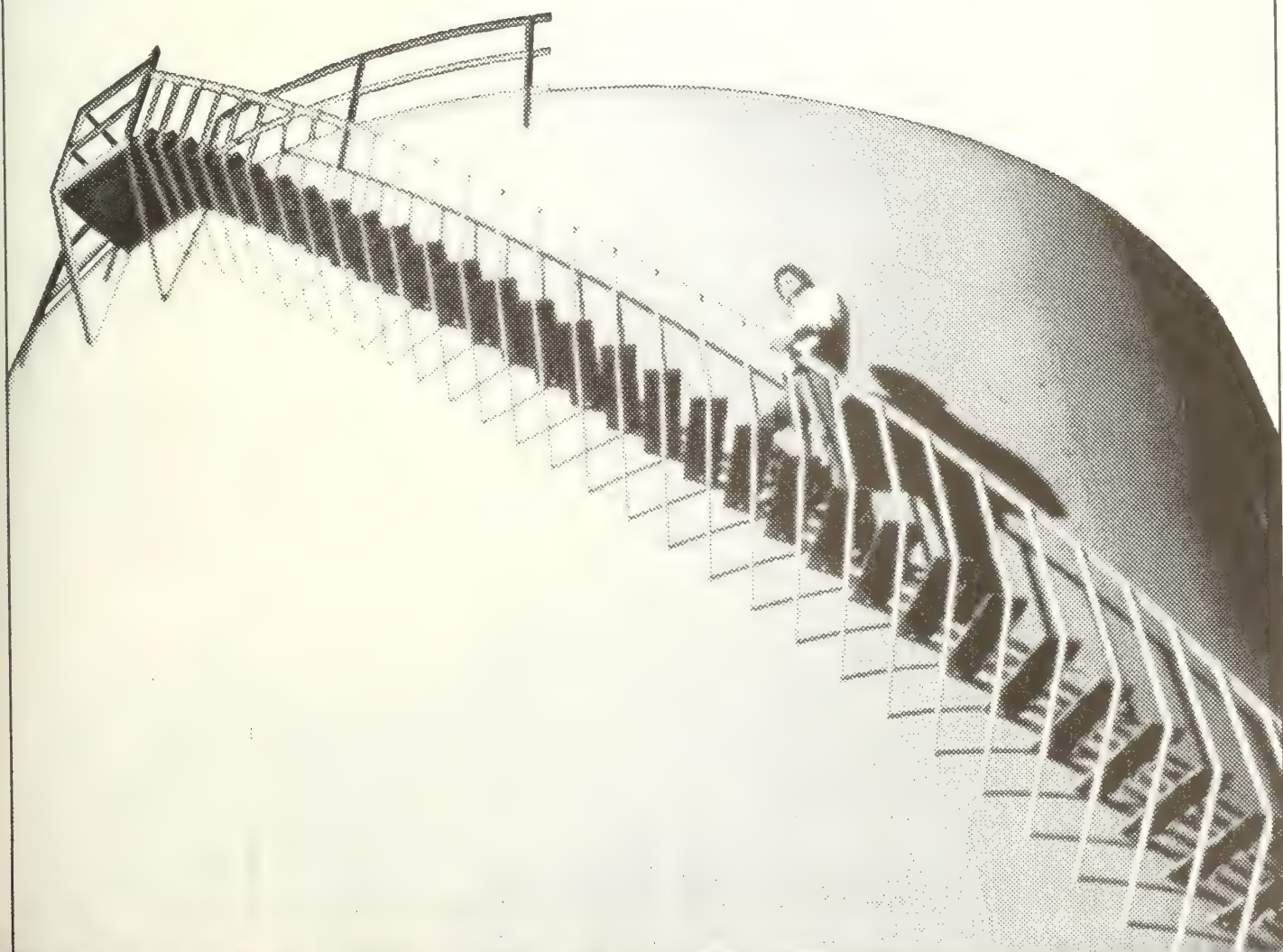
Imports of crude oil from Iraq, which averaged under 0.1 million barrels per day in 1987, increased sharply in March and April 1988. Over these 2 months, crude oil imports from Iraq averaged nearly 0.3 million barrels per day, about three times the 1987 average. This recent increase in Iraqi crude oil imports is apparently the result of a new Iraqi marketing strategy aimed at expanding and diversifying the outlets for its production. One target of increased Iraqi attention is the U.S. Gulf coast, which received 84 percent of the Iraqi crude oil imported into the United States in April.



A nearly 0.1 million barrel-per-day increase in gross refinery inputs pushed refinery utilization up this month to 84.0 percent.



Petroleum Focus



1870

Petroleum Supply Summary (Million Barrels per Day)

	May			Cumulative January Through May		
	1988	1987	% Change	1988	1987	% Change
Products Supplied						
Motor Gasoline	7.1	7.5	-4.4	7.1	7.0	1.1
Distillate Fuel Oil	2.8	2.7	3.2	3.2	3.1	5.1
Residual Fuel Oil	1.0	1.0	-4.4	1.4	1.3	6.4
Other Products	5.3	4.8	10.1	5.2	5.0	4.5
Total	16.2	16.0	1.0	17.0	16.5	3.3
Crude Inputs to Refineries	13.4	12.7	6.0	13.1	12.4	5.2
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	9.9	10.0	-8	10.0	10.1	-1.4
Imports						
Crude Oil ²	5.0	4.2	17.4	4.8	4.0	19.2
SPR	(s)	.1	-65.3	(s)	.1	-35.6
Products	1.8	1.7	2.7	2.0	1.9	6.4
Total	6.8	6.1	12.0	6.9	6.0	14.4
Export						
Crude Oil	.2	.1	156.4	.2	.2	6.9
Products	.7	.6	14.0	.7	.6	5.3
Total	.9	.7	28.6	.8	.8	5.6
Stock Withdrawal						
Crude Oil ²	-.2	.1	-	-.1	(s)	-
Products	-.7	-.1	-	.2	.4	-
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	548	525	4.3	-	-	-
Other	363	325	11.9	-	-	-
Total	911	850	7.2	-	-	-
Products						
Motor Gasoline ³	228	235	-3.1	-	-	-
Distillate Fuel Oil	103	101	1.4	-	-	-
Residual Fuel Oil	44	40	10.0	-	-	-
Other	312	315	-1.1	-	-	-
Total	686	692	-8	-	-	-
Total Crude Oil and Products	1,597	1,542	3.6	-	-	-

¹ Includes alcohol and other hydrocarbon liquids.

² Excludes Strategic Petroleum Reserve (SPR).

³ Including blending components.

(s) = Less than 0.05 million barrels per day/or less than 0.05 percent.

Note: Percent changes are based on unrounded values. May 1988 data are estimates based on weekly data. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, April 1988.

1870-1871

Summary Statistics



Table S1. Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Liquids	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	⁶ 1,074
1975	Average	10,045	8,375	1,633	⁸ -17	⁸ -15	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	⁸ 1,392
1981	Average	10,230	8,572	1,609	⁸ -290	⁸ 130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	⁸ 1,430
1983	Average	10,299	8,688	1,559	⁸ -214	⁸ 234	15,231	1,454
1984	Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985	Average	10,636	8,971	1,609	-50	153	15,726	1,519
1986	January	10,911	9,137	1,711	-383	-151	16,088	1,535
	February	10,916	9,173	1,696	-37	804	16,186	1,514
	March	10,664	9,013	1,604	-345	1,160	16,276	1,489
	April	10,435	8,864	1,523	41	262	15,945	1,479
	May	10,440	8,838	1,543	260	-1,109	15,993	1,506
	June	10,187	8,623	1,504	3	-1,238	16,049	1,543
	July	10,225	8,660	1,507	-541	-422	16,307	1,573
	August	9,875	8,374	1,445	242	-551	16,618	1,582
	September	9,852	8,328	1,468	-217	-973	15,909	1,618
	October	9,954	8,419	1,477	-233	476	16,602	1,610
	November	10,061	8,412	1,569	95	-147	16,221	1,612
	December	9,985	8,352	1,571	186	443	17,131	1,593
	Average	10,289	8,680	1,551	-78	-124	16,281	—
1987	January	10,139	8,480	1,582	-166	376	16,684	1,586
	February	10,073	8,389	1,618	-22	831	16,908	1,563
	March	10,131	8,464	1,598	-125	340	16,165	1,557
	April	10,139	8,498	1,590	50	532	16,524	1,539
	May	9,977	8,336	1,585	36	-116	16,026	1,542
	June	9,906	8,279	1,578	-165	-42	16,830	1,548
	July	9,895	8,251	1,582	33	-372	17,113	1,558
	August	9,843	8,210	1,571	-345	-737	16,346	1,592
	September	9,851	8,205	1,582	-220	-236	16,670	1,606
	October	10,037	8,364	1,602	-661	523	16,941	1,610
	November	10,112	8,397	1,637	-355	-478	16,343	1,635
	December	10,001	8,318	1,621	405	482	17,445	1,607
	Average	10,008	8,349	1,595	-128	87	16,665	—
1988	January	^E 9,874	^E 8,245	1,569	56	285	17,224	1,597
	February	^E 10,016	^E 8,376	1,594	-130	895	17,584	1,575
	March	^E 10,044	^E 8,347	1,628	-212	748	17,530	1,559
	April [*]	^{RE} 9,935	^{RE} 8,268	^R 1,609	^R -194	^R -450	^R 16,440	^R 1,578
	May ^{**}	^{PE} 9,902	^{PE} 8,240	^E 1,607	^E -219	^E -690	^E 16,184	^E 1,597
	5-Mo. Average	^{PE} 9,954	^{PE} 8,294	^E 1,601	^E -140	^E 152	^E 16,988	—
1987	5-Mo. Average	10,092	8,434	1,594	-47	383	16,452	—
1986	5-Mo. Average	10,670	9,003	1,614	-95	181	16,097	—

¹ Includes lease condensate.² A negative number indicates an increase in stocks and a positive number indicates a decrease.³ Stocks are totals as of end of period.⁴ Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.⁵ Includes stocks located in the Strategic Petroleum Reserve.⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.⁷ Net Imports equal Imports minus Exports.⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil¹ and Petroleum Products Overview (Continued)

		Imports			Exports			Net ⁷ Imports
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	Average	5,437	3,426	2,011	722	181	541	4,715
1985	Average	5,067	3,201	1,866	781	204	577	4,286
1986	January	5,573	3,472	2,101	859	159	700	4,714
	February	4,676	2,968	1,709	876	162	715	3,800
	March	4,712	2,988	1,724	732	212	520	3,980
	April	5,439	3,684	1,755	850	94	756	4,589
	May	6,400	4,250	2,150	724	98	625	5,676
	June	6,848	4,635	2,213	642	240	401	6,206
	July	6,942	4,726	2,216	685	65	620	6,256
	August	7,168	4,859	2,309	868	233	635	6,300
	September	7,090	5,031	2,059	714	161	553	6,375
	October	6,427	4,419	2,008	831	151	680	5,597
	November	6,592	4,615	1,977	821	115	706	5,771
	December	6,700	4,412	2,288	820	159	661	5,881
	Average	6,224	4,178	2,045	785	154	631	5,439
1987	January	6,353	4,385	1,968	703	84	619	5,650
	February	5,984	3,866	2,118	977	284	694	5,007
	March	5,794	3,779	2,015	720	150	570	5,074
	April	5,911	4,132	1,779	870	247	624	5,041
	May	6,073	4,340	1,732	666	69	597	5,407
	June	6,769	4,807	1,962	669	116	554	6,099
	July	7,588	5,295	2,293	680	149	531	6,908
	August	7,454	5,510	1,944	664	141	523	6,790
	September	7,178	5,110	2,068	795	116	680	6,382
	October	7,068	5,142	1,926	646	84	562	6,422
	November	7,068	5,013	2,055	737	164	573	6,331
	December	6,833	4,640	2,194	1,057	220	838	5,776
	Average	6,678	4,674	2,004	764	151	613	5,914
1988	January	6,900	4,619	2,281	891	212	679	6,009
	February	6,995	4,692	2,303	867	149	718	6,128
	March	6,727	4,788	1,938	839	218	622	5,888
	April*	^R 7,050	^R 5,126	^R 1,924	^R 678	^R 117	^R 562	^R 6,371
	May**	^E 6,800	^E 5,021	^E 1,780	^E 857	^E 176	^E 681	^E 5,944
	5-Mo. Average	^E 6,892	^E 4,850	^E 2,042	^E 827	^E 175	^E 652	^E 6,065
1987	5-Mo. Average	6,025	4,105	1,919	783	164	619	5,242
1986	5-Mo. Average	5,373	3,481	1,892	806	145	661	4,567

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 9.1.

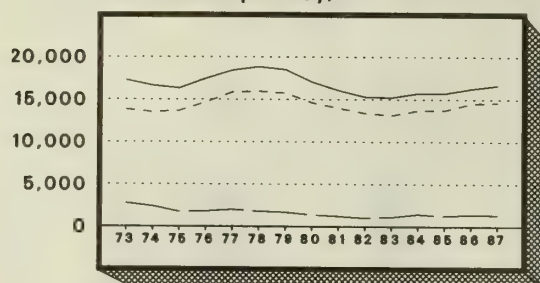
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

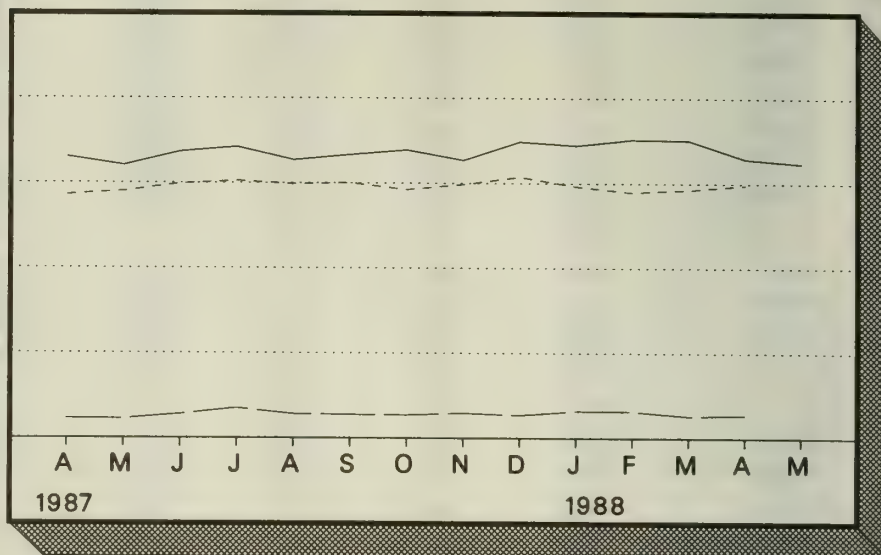
(Thousand Barrels per Day)



Annual

Legend
Petroleum Products Supplied
Refinery Production
Net Petroleum Products Imports

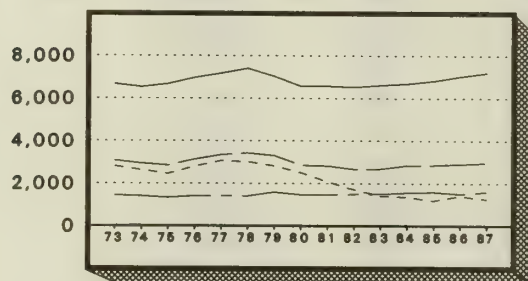
20,000
15,000
10,000
5,000
0



Monthly

Figure S2. Petroleum Products Supplied

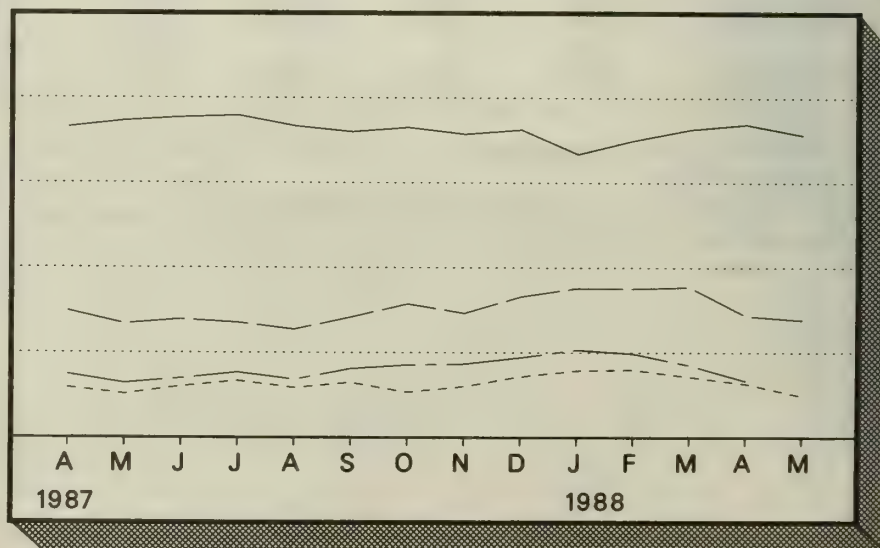
(Thousand Barrels per Day)



Annual

Legend
Motor Gasoline
Distillate Fuel Oil
Residual Fuel Oil
Liquefied Petroleum Gases

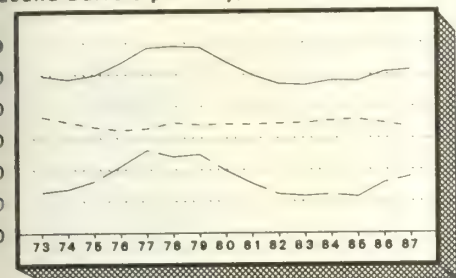
8,000
6,000
4,000
2,000
0



Monthly

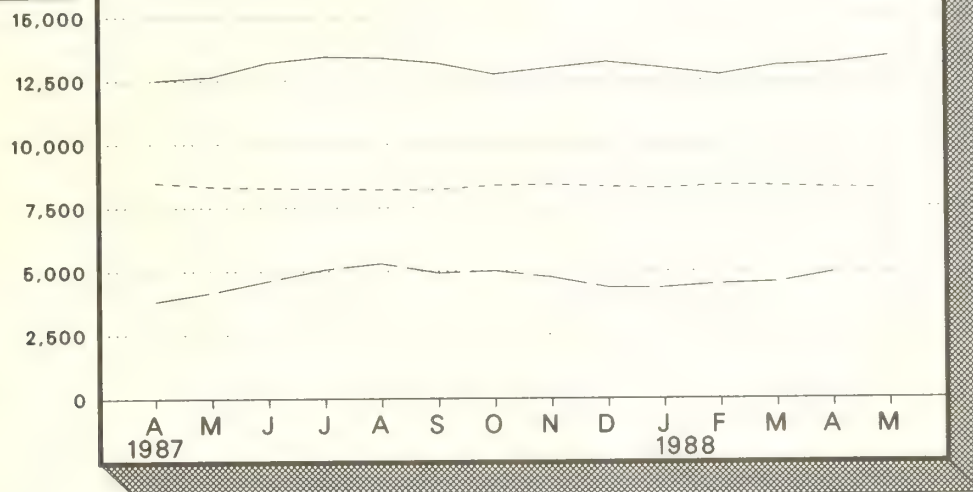
Figure S3. Crude Oil Supply and Disposition

(Thousand Barrels per Day)



Annual

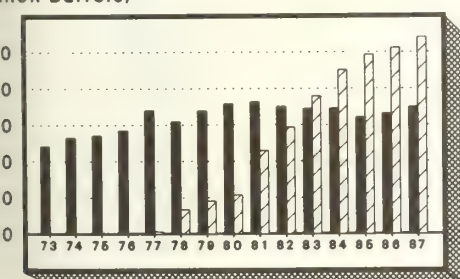
Legend
 Refinery Inputs
 Domestic Crude Oil Production
 Net Imports (excludes SPR)



Monthly

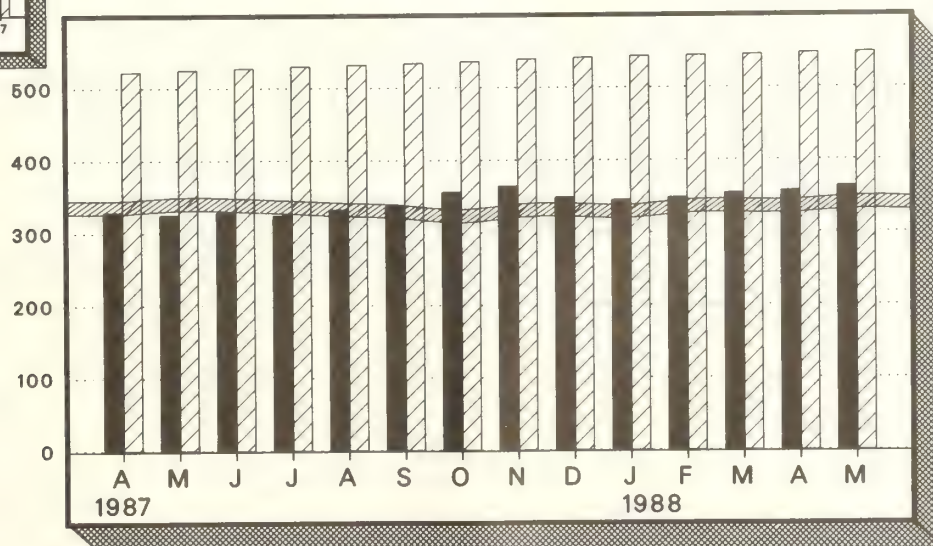
Figure S4. Crude Oil Ending Stocks

(Million Barrels)



Annual

Legend
 Other Primary
 SPR
 Average Stock Range (See Explanatory Note 6.)



Monthly

Table S2. Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil ⁵
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
Thousand Barrels per Day									
1973	Average	9,208	198	3,244	—	3,244	—	11	3
1974	Average	8,774	193	3,477	—	3,477	—	-62	-25
1975	Average	8,375	191	4,105	—	4,105	—	-17	17
1976	Average	8,132	173	5,287	—	5,287	—	-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	7 46	83
1982	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	Average	8,688	1,714	3,329	234	3,096	-234	7 20	114
1984	Average	8,879	1,722	3,426	197	3,229	-195	-4	185
1985	Average	8,971	1,825	3,201	118	3,083	-117	67	145
1986	January	9,137	1,870	3,472	51	3,420	-35	-348	364
	February	9,173	1,907	2,968	24	2,944	-35	-2	32
	March	9,013	1,860	2,988	59	2,929	-49	-296	259
	April	8,864	1,836	3,684	63	3,621	-63	104	70
	May	8,838	1,927	4,250	36	4,215	-35	295	79
	June	8,623	1,887	4,635	64	4,571	-64	66	292
	July	8,660	1,903	4,726	52	4,674	-52	-489	189
	August	8,374	1,811	4,859	51	4,809	-51	293	93
	September	8,328	1,782	5,031	47	4,984	-47	-170	161
	October	8,419	1,927	4,419	37	4,382	-36	-197	223
	November	8,412	1,883	4,615	45	4,570	-65	160	-136
	December	8,352	1,807	4,412	48	4,365	-68	254	28
	Average	8,580	1,867	4,178	48	4,130	-50	-28	139
1987	January	8,480	2,019	4,385	92	4,293	-108	-58	-5
	February	8,389	1,853	3,866	44	3,822	-64	42	382
	March	8,464	1,968	3,779	95	3,684	-106	-19	151
	April	8,498	1,990	4,132	57	4,076	-67	116	120
	May	8,336	1,979	4,340	92	4,248	-101	137	51
	June	8,279	1,930	4,807	64	4,743	-69	-97	434
	July	8,251	1,910	5,295	76	5,218	-91	124	32
	August	8,210	1,908	5,510	63	5,447	-63	-281	177
	September	8,205	1,874	5,110	64	5,047	-64	-157	217
	October	8,364	1,986	5,142	57	5,085	-57	-604	-3
	November	8,397	2,068	5,013	97	4,916	-97	-258	115
	December	8,318	2,043	4,640	68	4,572	-68	472	101
	Average	8,349	1,962	4,674	73	4,601	-80	-49	145
1988	January	E 8,245	E 1,999	4,619	67	4,552	-67	123	303
	February	E 8,376	E 2,070	4,692	49	4,643	-49	-81	-21
	March	E 8,347	E 2,086	4,788	23	4,766	-26	-187	419
	April*	RE 8,268	RE 2,029	R 5,126	R 78	R 5,049	R -77	R -117	R 126
	May**	PE 8,240	PE 2,070	E 5,021	E 32	E 4,989	E -32	E -187	E 601
	5-Mo. Average	PE 8,294	PE 2,051	E 4,850	E 49	E 4,800	E -50	E -90	E 291
1987	5-Mo. Average	8,434	1,964	4,105	77	4,028	-90	43	135
1986	5-Mo. Average	9,003	1,880	3,481	47	3,434	-43	-51	164

¹ Includes lease condensate.² Stocks are totals as of end of period.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Strategic Petroleum Reserve.⁵ A balancing item.⁶ Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.⁷ Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Notes 10 and 11.

Footnotes continued on following page.

Table S2. Crude Oil¹ Supply and Disposition (Continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ³	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁶	Total	SPR ⁴	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	Average	-19	13	12,431	2	—	242	—	242
1974	Average	-15	13	12,133	3	—	265	—	265
1975	Average	-17	13	12,442	6	—	271	—	271
1976	Average	-18	15	13,416	8	—	285	—	285
1977	Average	-14	16	14,602	50	—	348	7	340
1978	Average	-14	16	14,739	158	—	376	67	309
1979	Average	-13	16	14,648	235	—	430	91	339
1980	Average	-13	15	13,481	287	—	466	108	358
1981	Average	-58	5	12,470	228	—	594	230	363
1982	Average	-59	3	11,774	235	—	644	294	350
1983	Average	—	2	11,685	164	66	723	379	344
1984	Average	—	2	12,044	181	64	796	451	345
1985	Average	—	1	12,002	204	60	814	493	321
1986	January	—	1	12,374	159	57	826	494	332
	February	—	(s)	11,918	162	56	827	495	332
	March	—	(s)	11,652	212	52	838	497	341
	April	—	(s)	12,512	94	51	837	499	338
	May	—	(s)	13,279	98	49	829	500	329
	June	—	(s)	13,261	240	52	828	502	327
	July	—	(s)	12,917	65	51	845	503	342
	August	—	(s)	13,287	233	48	838	505	333
	September	—	(s)	13,097	161	45	844	506	338
	October	—	(s)	12,636	151	41	851	508	344
	November	—	(s)	12,831	115	41	849	509	339
	December	—	(s)	12,777	159	42	843	512	331
	Average	—	(s)	12,716	154	49	—	—	—
1987	January	—	1	12,570	84	41	848	515	333
	February	—	(s)	12,290	284	41	849	517	332
	March	—	1	12,081	150	39	852	520	332
	April	—	(s)	12,512	247	41	851	522	329
	May	—	(s)	12,653	69	42	850	525	325
	June	—	(s)	13,202	116	36	855	527	328
	July	—	(s)	13,430	149	32	854	530	324
	August	—	(s)	13,380	141	31	864	532	332
	September	—	(s)	13,168	116	28	871	534	337
	October	—	(s)	12,733	84	25	892	536	356
	November	—	(s)	12,981	164	25	902	539	364
	December	—	(s)	13,212	220	31	890	541	349
	Average	—	(s)	12,854	151	34	—	—	—
1988	January	—	(s)	12,975	212	36	888	543	345
	February	—	(s)	12,715	149	52	892	544	348
	March	—	(s)	13,072	218	52	899	545	354
	April	—	(s)	13,167	117	42	904	547	357
	May	—	(s)	13,415	176	52	911	548	363
	May**	—	(s)	13,415	176	52	—	—	—
	5-Mo. Average	—	(s)	13,073	175	47	—	—	—
1987	5-Mo. Average	—	(s)	12,423	164	41	—	—	—
1986	5-Mo. Average	—	1	12,354	145	53	—	—	—

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹									
		Algeria	Libya	Saudi Arabia ²	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ³	Total Arab OPEC ⁵
		Thousand Barrels per Day									
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993
1974	Average	190	4	461	74	300	469	713	979	88	3,280
1975	Average	282	232	715	117	390	280	762	702	122	3,601
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323
1982	Average	170	26	552	92	248	35	514	412	97	2,146
1983	Average	240	0	337	30	338	48	302	422	144	1,862
1984	Average	323	1	325	117	343	10	215	548	166	2,049
1985	Average	187	4	168	45	314	27	293	605	187	1,830
1986	January	215	0	664	11	290	0	278	629	210	2,298
	February	157	0	574	0	290	(s)	204	518	64	1,807
	March	260	0	482	0	161	0	328	797	117	2,145
	April	275	0	698	21	292	0	319	831	139	2,576
	May	193	0	574	40	314	40	398	899	290	2,749
	June	319	0	662	83	353	0	382	772	439	3,010
	July	310	0	738	59	532	66	542	730	330	3,307
	August	363	0	680	37	274	93	606	916	378	3,346
	September	245	0	810	62	341	31	684	856	356	3,383
	October	305	0	697	147	388	0	530	863	346	3,276
	November	311	0	868	34	335	0	483	843	214	3,088
	December	291	0	769	30	251	0	511	841	284	2,976
	Average	271	0	685	44	318	19	440	793	265	2,837
1987	January	156	0	875	15	254	0	348	899	218	2,764
	February	307	0	776	54	418	30	256	791	155	2,785
	March	334	0	430	0	317	73	312	702	135	2,305
	April	323	0	463	62	236	47	512	710	77	2,430
	May	196	0	499	26	297	75	550	913	119	2,675
	June	247	0	782	45	261	165	546	808	268	3,122
	July	347	0	756	42	349	237	792	854	157	3,533
	August	250	0	961	103	312	208	732	831	351	3,748
	September	378	0	902	146	242	193	615	821	263	3,560
	October	274	0	1,051	111	305	86	518	829	401	3,576
	November	395	0	637	97	219	41	607	771	402	3,169
	December	339	0	876	31	216	23	613	717	220	3,033
	Average	295	0	751	61	285	98	535	804	231	3,060
1988	January	312	0	849	61	179	⁶ 1	406	752	540	3,100
	February	358	0	1,265	79	148	0	501	830	214	3,394
	March	259	0	934	6	123	0	541	790	352	3,006
	April	342	0	931	48	166	0	651	812	385	3,335
	4-Mo. Average	317	0	991	48	154	(s)	524	795	354	3,205
1987	4-Mo. Average	279	0	634	32	304	37	358	776	147	2,567
1986	4-Mo. Average	228	0	605	8	257	(s)	284	697	134	2,213

¹ Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

² Prior to January 1988, data on crude oil and petroleum product imports from the Neutral Zone are included in the data for Saudi Arabia. From January 1988 forward, those imports are included in the data for "Other OPEC."

³ "Other OPEC" consists of Ecuador, Gabon, Iraq, Kuwait, Neutral Zone, and Qatar.

⁴ "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members.

⁵ The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Neutral Zone, Qatar, Saudi Arabia, and the United Arab Emirates.

⁶ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources ⁷										Total Imports
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	
Thousand Barrels per Day												
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	January	62	823	681	58	108	333	21	326	862	3,275	5,573
	February	33	690	557	11	85	218	18	309	949	2,870	4,676
	March	18	750	616	27	79	178	25	186	688	2,567	4,712
	April	34	798	694	13	111	188	23	209	793	2,863	5,439
	May	32	881	743	37	130	365	27	237	1,199	3,651	6,400
	June	29	753	884	17	167	569	30	233	1,157	3,838	6,848
	July	44	763	850	25	131	353	29	237	1,202	3,634	6,942
	August	39	801	738	12	133	584	7	214	1,294	3,822	7,168
	September	15	801	615	17	162	437	23	291	1,345	3,706	7,090
	October	38	842	680	26	112	173	21	215	1,043	3,151	6,427
	November	39	960	565	53	129	448	21	179	1,111	3,504	6,592
	December	57	809	746	7	148	351	12	291	1,304	3,724	6,700
	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	49	953	767	40	104	312	29	341	1,205	3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	March	45	989	745	30	89	461	22	180	1,160	3,720	6,727
	April	12	975	674	31	82	581	29	193	1,137	3,714	7,050
	4-Mo. Average	41	978	722	30	92	417	24	229	1,177	3,711	6,915
1987	4-Mo. Average	50	784	695	20	118	364	25	282	1,106	3,445	6,012
1986	4-Mo. Average	37	767	638	28	96	230	22	257	820	2,894	5,108

Footnotes continued.

⁷ Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

(s) = Less than 500 barrels per day.

Notes: * Beginning in October 1977, Strategic Petroleum Reserve imports are included. * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)

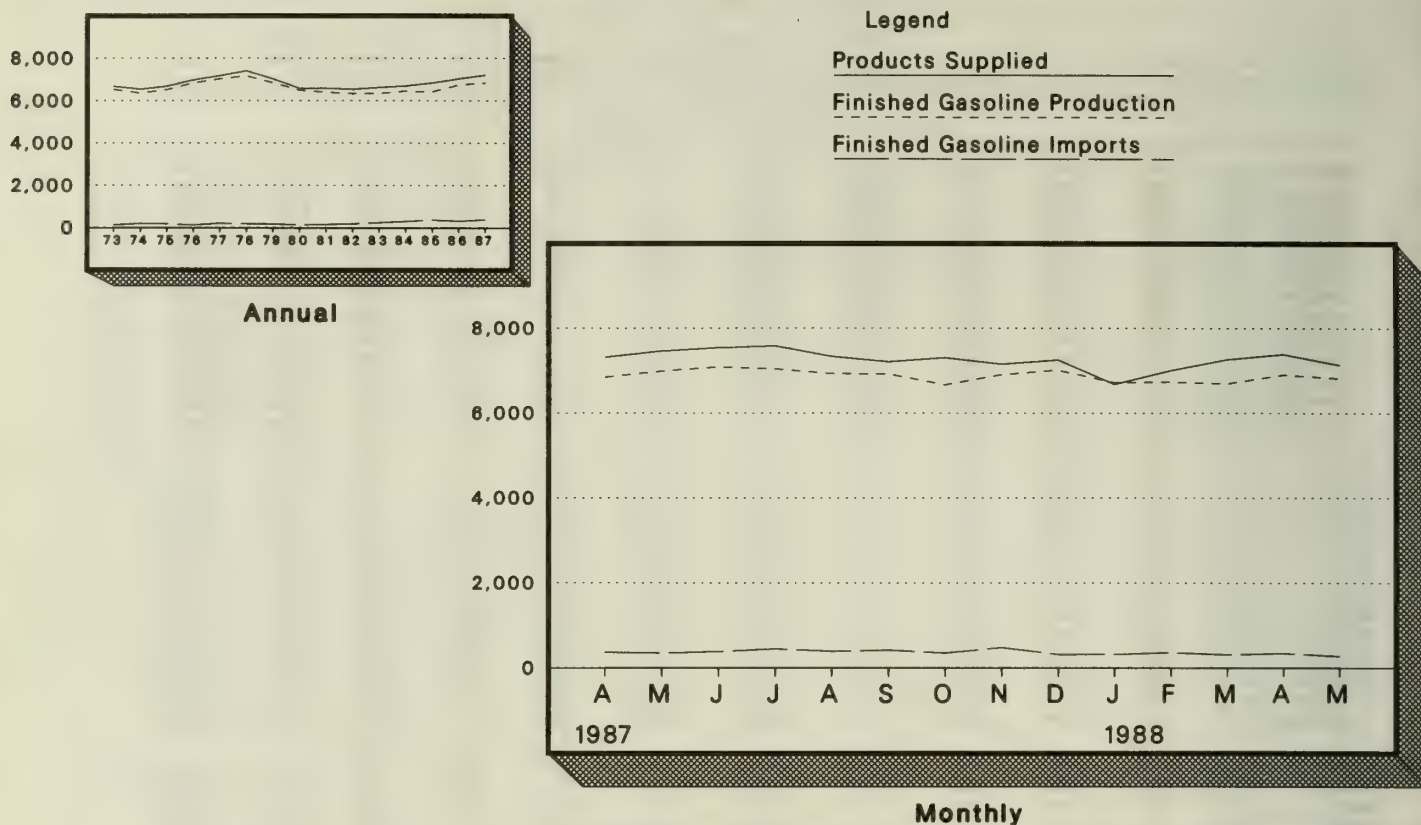
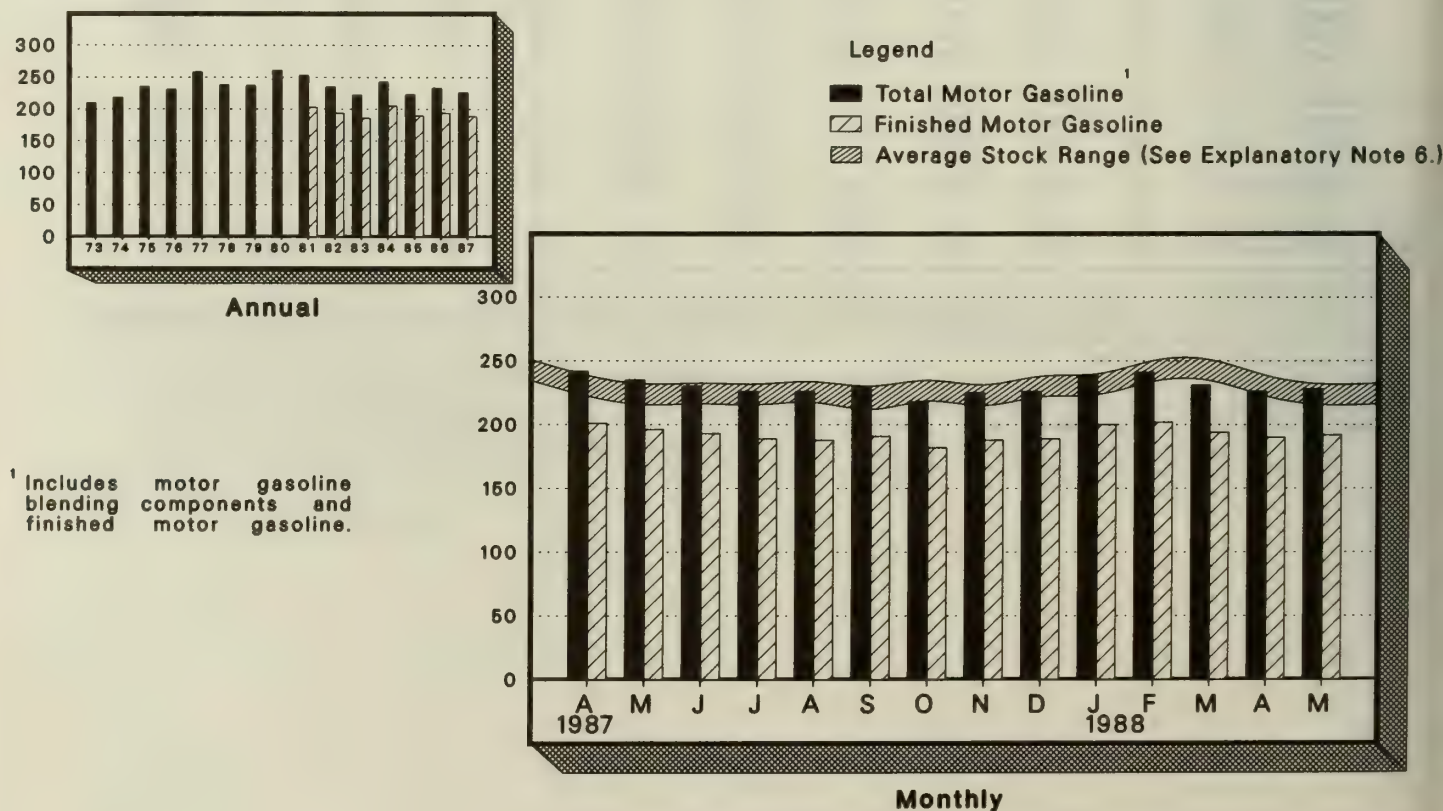


Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)



¹ Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawal ^{2,3}	Exports	Product Supplied		Total Motor Gasoline ⁵	Finished Motor Gasoline	
						Total ⁴	Unleaded			Unleaded
1973	Average	6,535	134	9	4	6,674	—	—	209	—
1974	Average	6,360	204	-24	2	6,537	—	—	⁶ 218	—
1975	Average	6,520	184	⁶ -28	2	6,675	—	—	235	—
1976	Average	6,841	131	10	3	6,978	—	—	231	—
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	—
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	—
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237	—
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	—
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	—
1982	Average	6,338	197	25	20	6,539	3,409	52.1	⁶ 235	—
1983	Average	6,340	247	⁶ 45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	-54	6	6,693	3,987	59.6	243	205
1985	Average	6,419	381	41	10	6,831	4,406	64.5	223	190
1986	January	6,522	332	-347	6	6,502	4,404	67.7	238	201
	February	6,302	334	-156	11	6,469	4,365	67.5	244	205
	March	6,061	224	691	21	6,955	4,678	67.3	219	184
	April	6,498	291	338	23	7,105	4,783	67.3	207	174
	May	7,095	471	-450	9	7,106	4,729	66.5	221	188
	June	7,101	392	-265	18	7,209	4,914	68.2	230	196
	July	6,956	337	189	47	7,436	5,182	69.7	224	190
	August	7,092	303	83	43	7,435	5,138	69.1	222	187
	September	6,891	303	-289	40	6,864	4,813	70.1	234	196
	October	6,616	322	372	61	7,250	5,086	70.1	222	184
	November	6,895	280	-200	96	6,879	4,918	71.5	229	190
	December	6,970	320	-122	24	7,143	5,193	72.7	233	194
	Average	6,752	326	-11	33	7,034	4,854	69.0	—	—
1987	January	6,714	393	-528	44	6,535	4,822	73.8	251	211
	February	6,365	309	144	22	6,796	5,068	74.6	250	207
	March	6,569	364	51	20	6,964	5,193	74.6	248	205
	April	6,850	374	133	42	7,314	5,405	73.9	242	201
	May	6,991	354	164	48	7,460	5,569	74.7	235	196
	June	7,089	385	111	46	7,539	5,678	75.3	230	193
	July	7,043	452	119	33	7,581	5,740	75.7	226	189
	August	6,933	396	29	19	7,338	5,656	77.1	226	188
	September	6,921	421	-107	30	7,205	5,536	76.8	230	191
	October	6,668	356	302	21	7,305	5,636	77.1	218	182
	November	6,907	484	-208	32	7,151	5,589	78.2	225	188
	December	7,015	320	-24	59	7,251	5,715	78.8	226	189
	Average	6,841	384	15	35	7,206	5,470	75.9	—	—
1988	January	6,723	324	-361	8	6,679	5,392	80.7	239	200
	February	6,736	365	-78	18	7,004	5,571	79.5	241	202
	March	6,695	318	271	18	7,265	5,845	80.4	231	194
	April*	^R 6,906	^R 349	^R 148	^R 18	^R 7,384	^R 5,946	^R 80.5	^R 226	^R 190
	May**	^E 6,822	^E 281	^E 48	^E 18	^E 7,134	^E 5,759	^E 80.7	^E 228	^E 192
	5-Mo. Average	^E 6,776	^E 327	^E 6	^E 16	^E 7,093	^E 5,703	^E 80.4	—	—
1987	5-Mo. Average	6,703	360	-11	36	7,016	5,213	74.3	—	—
1986	5-Mo. Average	6,499	331	17	14	6,833	4,595	67.3	—	—

¹ Stocks are totals as of end of period.² Beginning in 1981, excludes blending components.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Includes gasohol.⁵ Includes motor gasoline blending components.⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

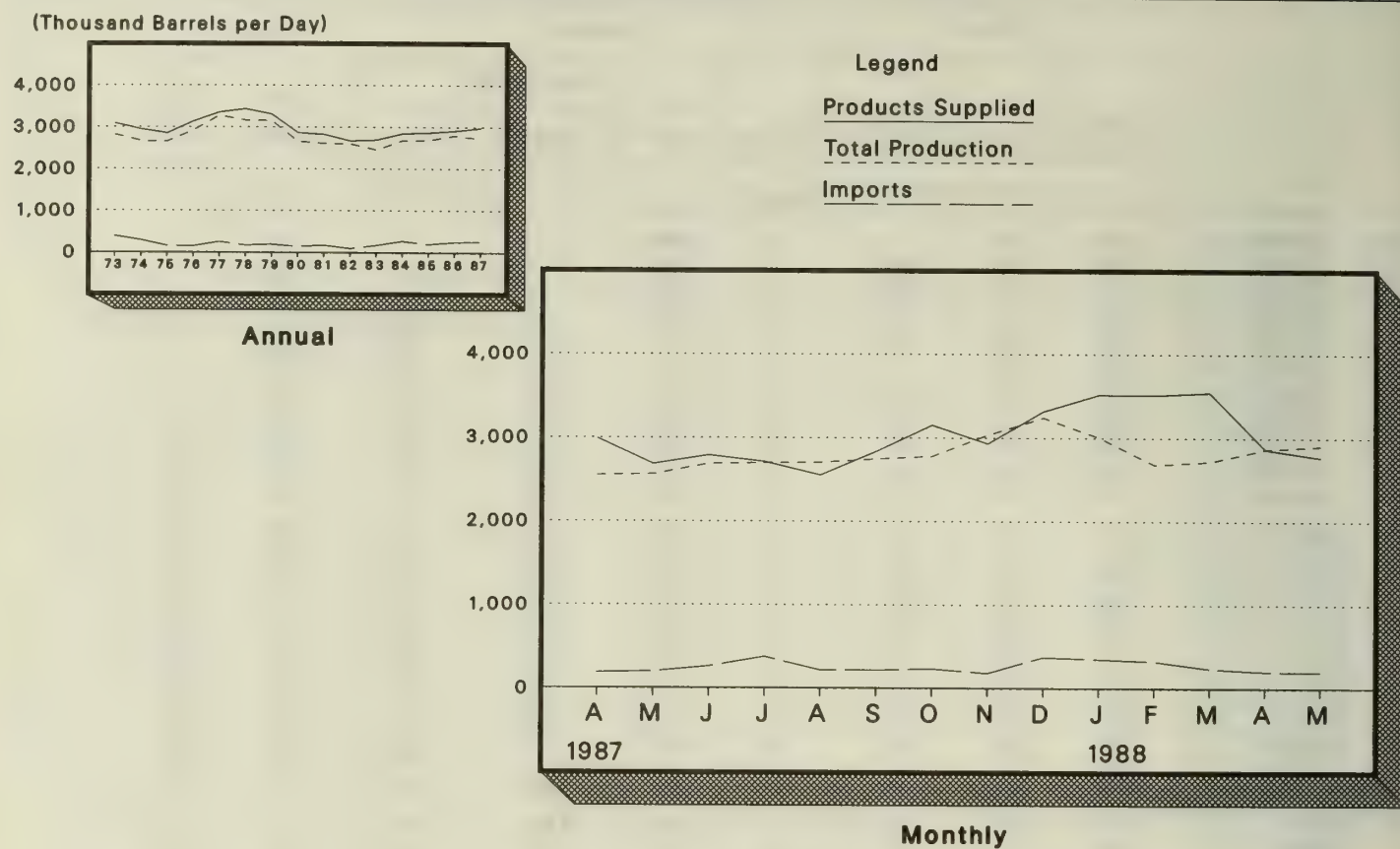


Figure S8. Distillate Fuel Oil Ending Stocks

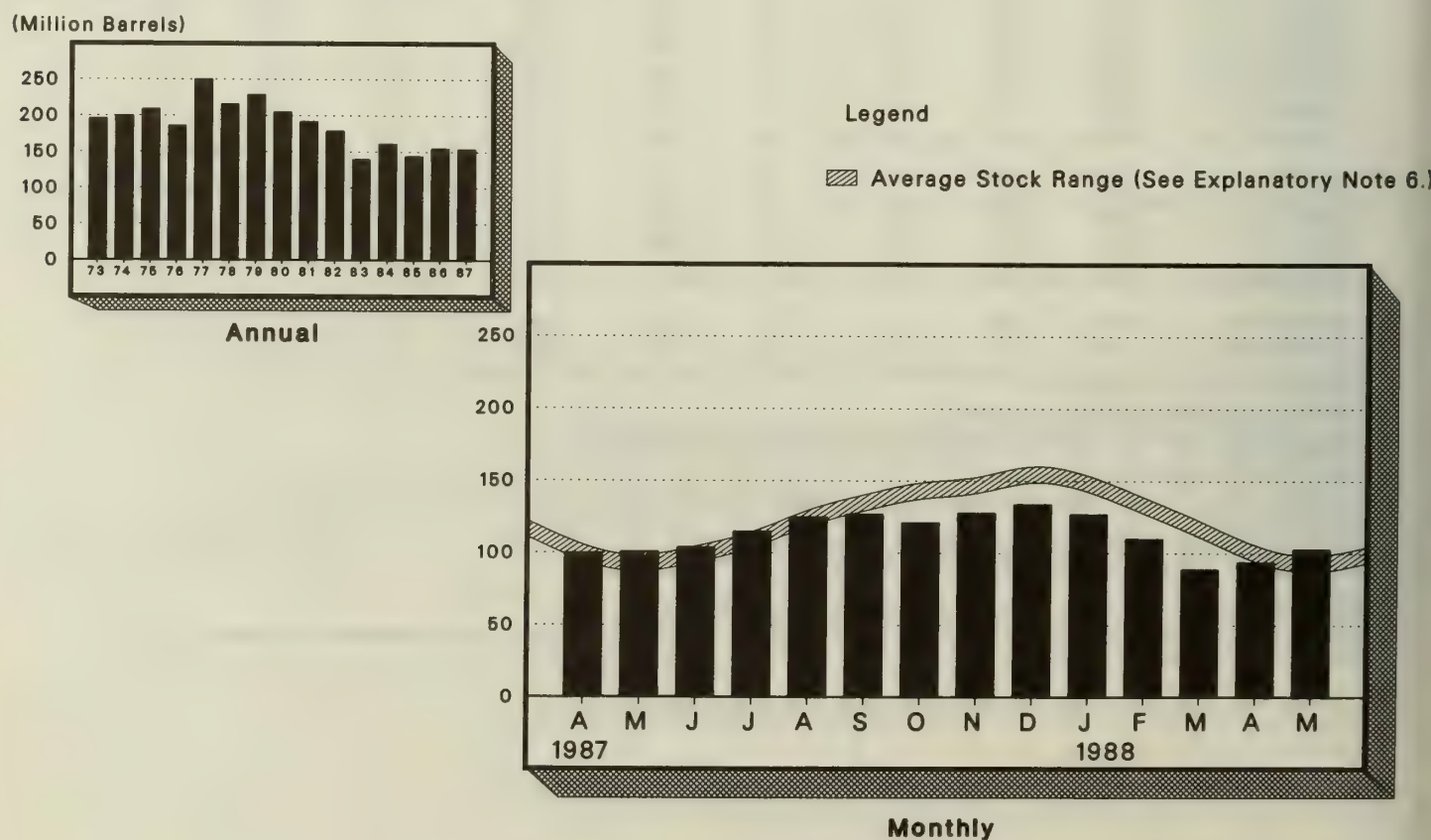


Table S5. Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
								Million Barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	⁴ 179
1983	Average	2,456	174	⁴ 124	—	64	2,690	140
1984	Average	2,681	272	-57	—	51	2,845	161
1985	Average	2,687	200	48	—	67	2,868	144
1986	January	2,899	325	232	--	126	3,330	136
	February	2,563	169	860	--	176	3,416	112
	March	2,643	217	438	--	131	3,168	99
	April	2,788	147	97	--	128	2,904	96
	May	2,858	149	-95	--	149	2,762	99
	June	2,729	169	-301	--	53	2,544	108
	July	2,710	313	-355	--	75	2,592	119
	August	2,922	370	-607	--	64	2,621	138
	September	2,865	262	-489	--	98	2,540	152
	October	2,717	243	25	--	74	2,912	152
	November	2,917	254	-222	--	72	2,877	158
	December	2,943	339	102	--	55	3,329	155
	Average	2,798	247	-31	--	100	2,914	--
1987	January	2,759	222	444	--	115	3,310	141
	February	2,556	253	629	--	93	3,345	124
	March	2,421	297	464	--	67	3,116	109
	April	2,553	192	300	--	53	2,991	100
	May	2,563	203	-31	--	51	2,684	101
	June	2,689	265	-104	--	61	2,790	104
	July	2,700	381	-329	--	38	2,713	115
	August	2,706	222	-327	--	47	2,553	125
	September	2,748	222	-68	--	64	2,838	127
	October	2,780	237	187	--	53	3,151	121
	November	3,035	187	-234	--	56	2,932	128
	December	3,242	378	-209	--	92	3,318	134
	Average	2,731	255	56	--	66	2,976	--
1988	January	3,008	355	236	--	82	3,517	127
	February	2,683	330	604	--	107	3,511	110
	March	2,720	243	656	--	74	3,544	89
	April*	^R 2,869	^R 208	^R -166	--	^R 42	^R 2,870	^R 94
	May**	^E 2,907	^E 204	^E -247	--	^E 94	^E 2,770	^E 103
	5-Mo. Average	^E 2,839	^E 268	^E 214	--	^E 80	^E 3,241	--
1987	5-Mo. Average	2,571	233	356	--	76	3,085	--
1986	5-Mo. Average	2,754	202	297	--	141	3,112	--

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.
² Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.
³ Stocks are totals as of end of period.
⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.
See Explanatory Note 10.
⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 9.4.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

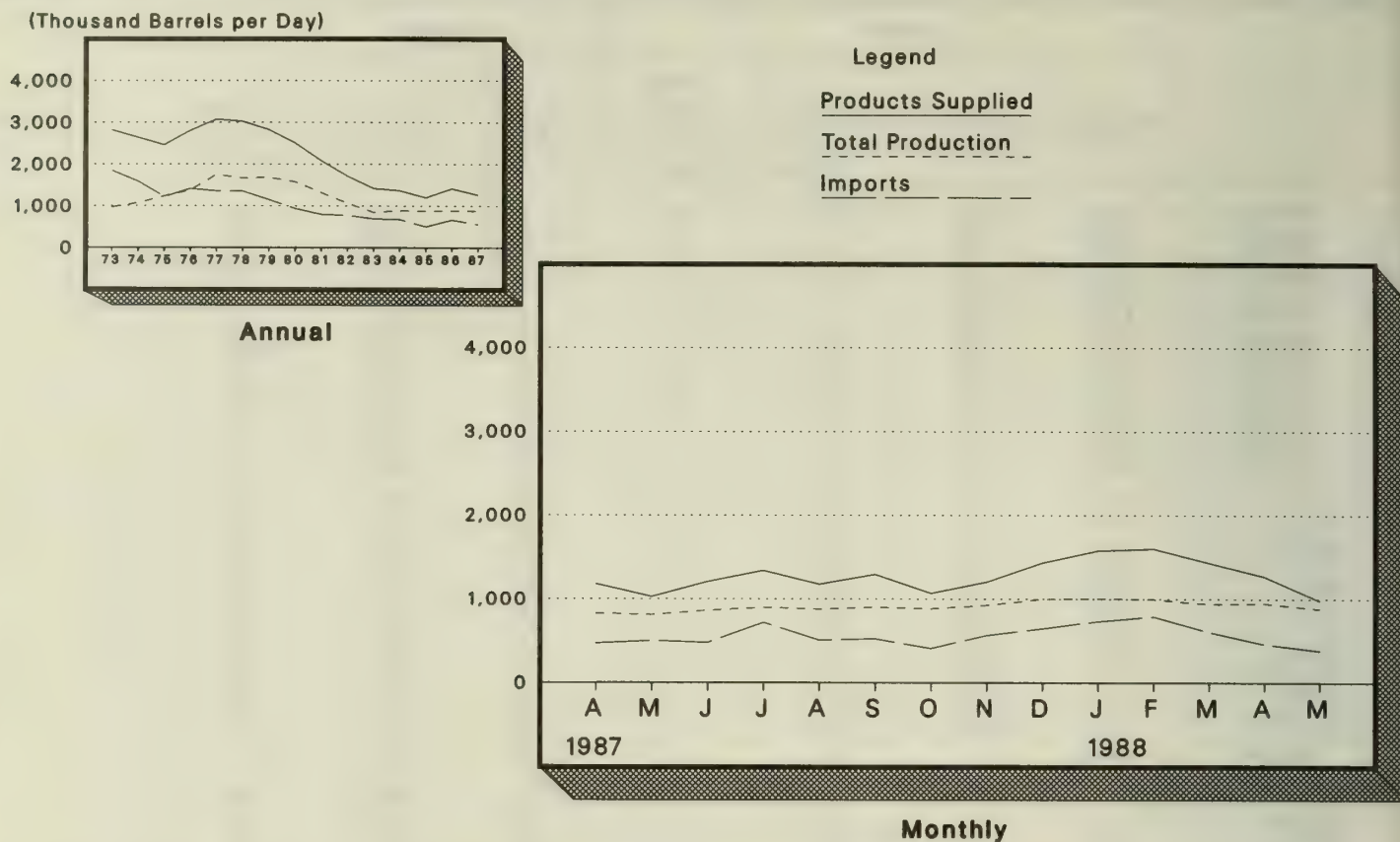


Figure S10. Residual Fuel Oil Ending Stocks

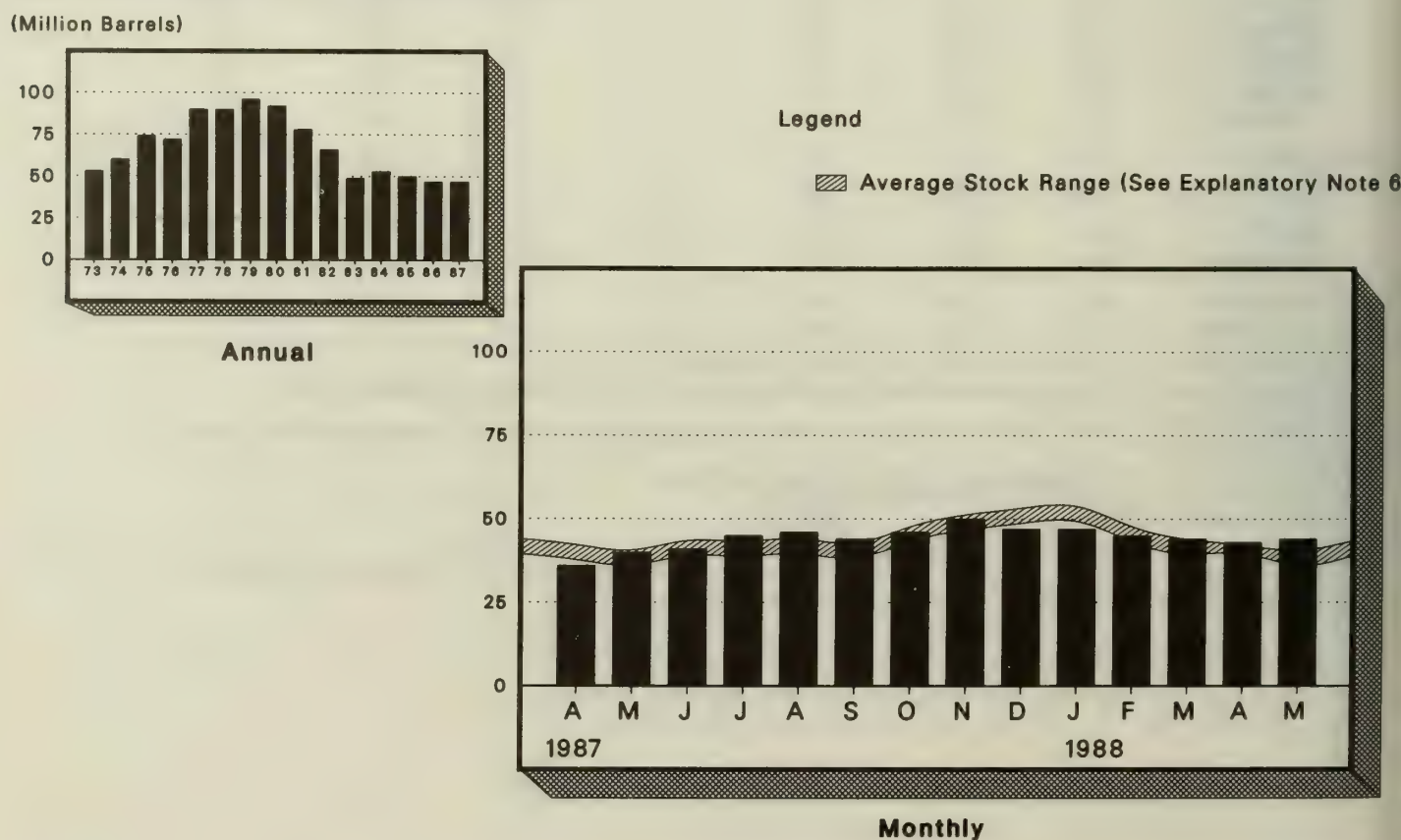


Table S6. Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³	
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²		
									Thousand Barrels per Day
								Million Barrels	
1973	Average	971	1,853	5	17	23	2,822	53	
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60	
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74	
1976	Average	1,377	1,413	5	17	12	2,801	72	
1977	Average	1,754	1,359	-48	13	6	3,071	90	
1978	Average	1,667	1,355	-1	13	13	3,023	90	
1979	Average	1,687	1,151	-15	12	9	2,826	96	
1980	Average	1,580	939	10	12	33	2,508	⁴ 92	
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78	
1982	Average	1,070	776	32	48	209	1,716	⁴ 66	
1983	Average	852	699	⁴ 55	—	185	1,421	49	
1984	Average	891	681	-12	—	190	1,369	53	
1985	Average	882	510	7	—	197	1,202	50	
1986	January	940	622	56	—	211	1,407	49	
	February	856	604	200	—	183	1,478	43	
	March	813	626	108	—	113	1,435	40	
	April	933	545	127	—	202	1,402	36	
	May	913	675	-114	—	129	1,345	39	
	June	818	712	-111	—	43	1,377	43	
	July	850	673	75	—	90	1,508	40	
	August	896	793	-29	—	174	1,485	41	
	September	854	641	-89	—	110	1,296	44	
	October	827	635	-59	—	144	1,259	46	
	November	975	574	-15	—	143	1,391	46	
	December	987	913	-37	—	224	1,638	47	
		Average	889	669	8	—	147	1,418	—
	1987	January	920	701	81	—	198	1,504	45
February		825	668	243	—	221	1,515	38	
March		863	559	-38	—	150	1,234	39	
April		831	476	114	—	239	1,182	36	
May		813	505	-145	—	144	1,029	40	
June		864	481	-33	—	105	1,207	41	
July		901	721	-108	—	175	1,339	45	
August		882	512	-32	—	185	1,176	46	
September		904	526	42	—	177	1,296	44	
October		887	414	-39	—	194	1,069	46	
November		928	568	-145	—	146	1,205	50	
December		1,001	650	83	—	300	1,434	47	
		Average	885	565	(s)	—	186	1,264	—
1988		January	1,009	737	23	—	190	1,578	47
	February	997	792	40	—	229	1,601	45	
	March	944	610	45	—	165	1,434	44	
	April*	^R 951	^R 465	^R 27	—	^R 170	^R 1,272	^R 43	
	May**	^E 884	^E 388	^E 85	—	^E 204	^E 983	^E 44	
	5-Mo. Average	^E 957	^E 597	^E 10	—	^E 191	^E 1,371	—	
	1987	5-Mo. Average	851	581	47	—	189	1,289	—
1986	5-Mo. Average	891	615	73	—	167	1,412	—	

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.
² Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.
³ Stocks are totals as of end of period.
⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 9.4.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

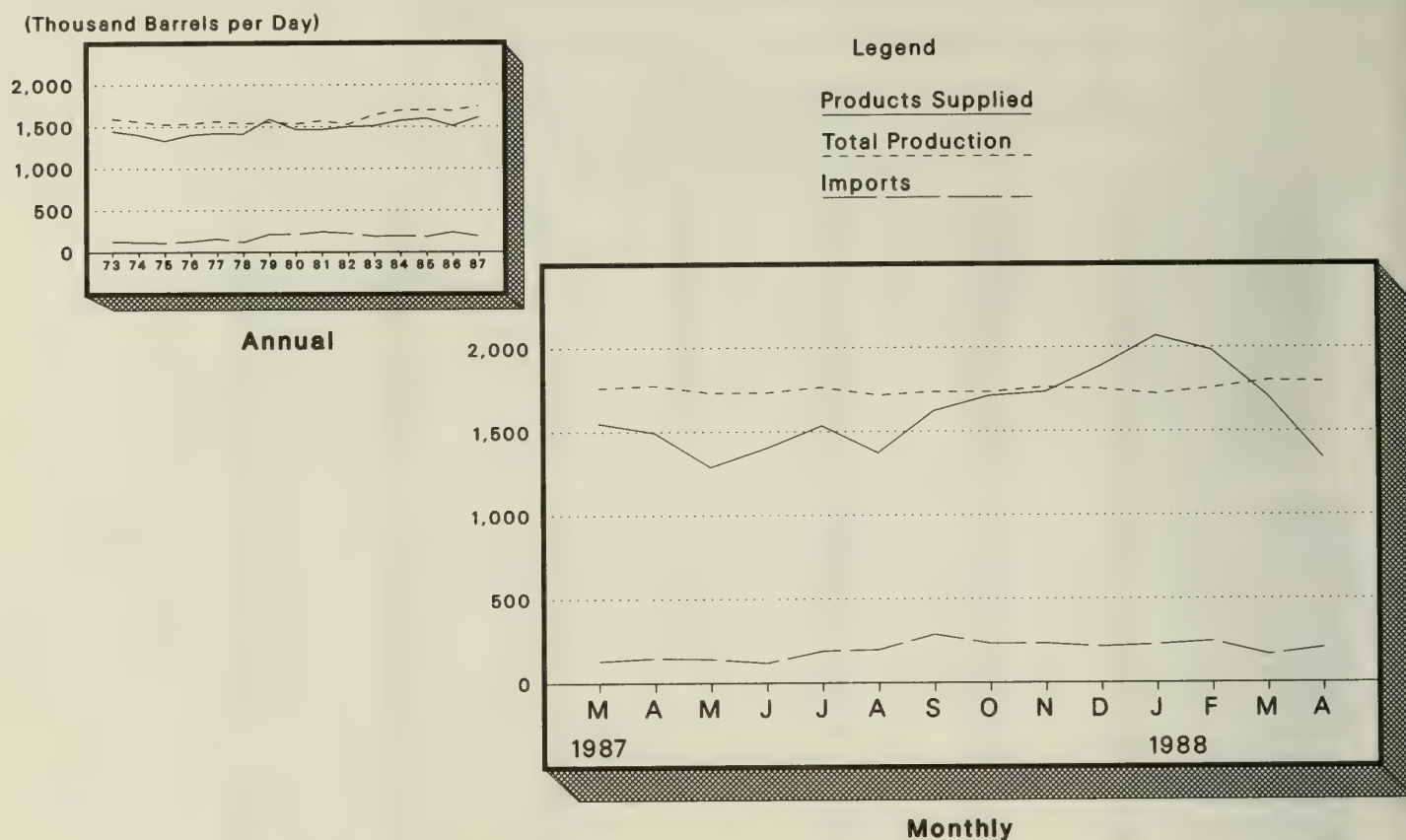


Figure S12. Liquefied Petroleum Gases Ending Stocks

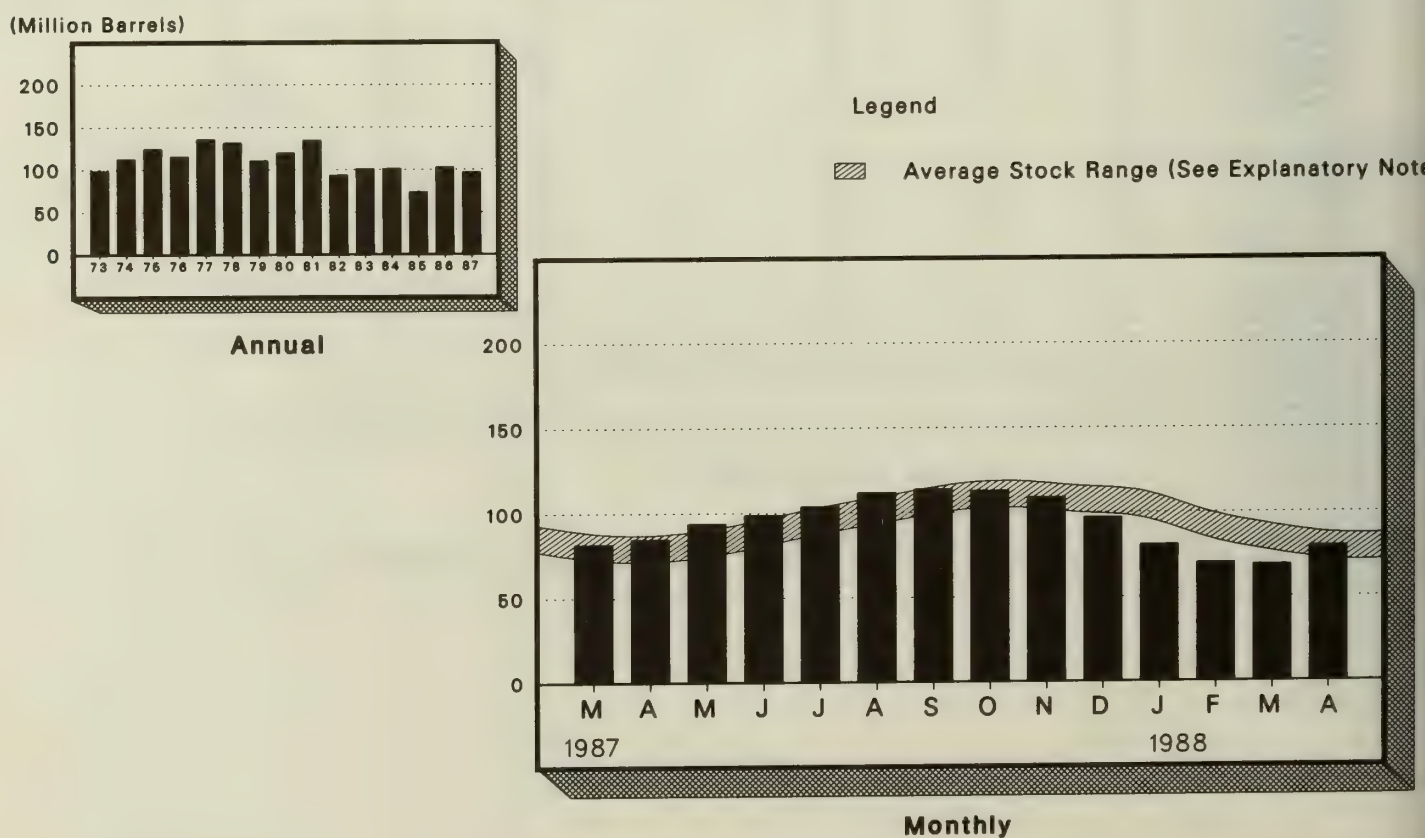


Table S7. Liquefied Petroleum Gases¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
								Million Barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	⁴ 113
1975	Average	1,527	112	⁴ -35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	⁴ 120
1981	Average	1,571	244	⁴ -18	289	42	1,466	135
1982	Average	1,528	226	111	300	65	1,499	⁴ 94
1983	Average	1,642	190	⁴ 4	253	73	1,509	⁴ 101
1984	Average	1,697	195	⁴ 19	291	48	1,572	101
1985	Average	1,704	187	75	304	62	1,599	74
1986	January	1,850	280	80	364	47	1,800	71
	February	1,815	208	108	325	74	1,733	68
	March	1,693	202	-98	250	47	1,500	71
	April	1,642	134	-200	256	33	1,286	77
	May	1,685	196	-336	267	40	1,238	87
	June	1,649	253	-490	228	25	1,158	102
	July	1,684	303	-450	199	50	1,287	116
	August	1,619	271	-332	243	53	1,262	126
	September	1,631	282	-142	288	27	1,456	131
	October	1,625	234	249	332	26	1,750	123
	November	1,724	310	254	417	53	1,817	115
	December	1,725	227	411	456	33	1,875	103
	Average	1,695	242	-80	302	42	1,512	--
1987	January	1,751	183	500	419	43	1,971	87
	February	1,762	201	205	341	38	1,789	81
	March	1,761	132	-10	282	52	1,550	82
	April	1,775	149	-121	274	36	1,493	85
	May	1,732	142	-283	269	34	1,288	94
	June	1,732	119	-175	255	22	1,400	99
	July	1,764	190	-145	244	30	1,534	104
	August	1,717	198	-259	252	33	1,372	112
	September	1,736	288	-81	266	56	1,622	114
	October	1,736	233	59	294	23	1,711	113
	November	1,763	233	129	356	35	1,735	109
	December	1,753	214	372	395	56	1,887	97
	Average	1,748	190	15	304	38	1,612	--
1988	January	1,723	226	529	366	44	2,069	81
	February	1,757	245	364 ¹	336	47	1,982	70
	March	1,802	165	45	266	36	1,710	69
	April*	1,796	205	-362	256	43	1,339	80
	4-Mo. Average	1,770	209	144	306	42	1,775	--
1987	4-Mo. Average	1,762	166	144	329	42	1,700	--
1986	4-Mo. Average	1,749	207	-29	298	50	1,578	--

¹ Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.
² A negative number indicates an increase in stocks and a positive number indicates a decrease.
³ Stocks are totals as of end of period.
⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.
See Explanatory Note 10.
* See Explanatory Note 9.5.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Table S8. Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,418	277	⁴ 4	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	⁴ 253
1983	Average	3,460	411	⁴ 6	712	242	2,923	⁴ 256
1984	Average	3,632	565	⁴ 23	791	245	3,183	240
1985	Average	3,721	588	-17	886	240	3,166	246
1986	January	3,902	541	⁵ -172	967	311	2,993	252
	February	3,868	393	-209	747	270	3,035	⁵ 258
	March	3,754	454	⁵ 21	854	208	3,167	257
	April	3,788	638	-100	760	369	3,196	260
	May	4,055	659	-114	810	298	3,492	⁵ 264
	June	4,209	687	⁵ -70	853	263	3,710	266
	July	4,145	589	⁵ 119	1,064	357	3,432	262
	August	4,223	572	335	1,061	301	3,768	⁵ 252
	September	4,225	571	⁵ 35	846	278	3,708	⁵ 251
	October	3,969	575	⁵ -112	666	375	3,391	254
	November	3,904	559	⁵ 36	940	342	3,217	253
	December	3,920	490	⁵ 90	1,069	325	3,105	250
	Average	3,997	561	-10	888	308	3,353	-
1987	January	3,852	469	-121	659	219	3,323	254
	February	3,796	687	-389	352	320	3,422	265
	March	3,766	663	-128	757	281	3,262	269
	April	3,933	589	107	872	254	3,502	266
	May	4,049	529	178	913	320	3,523	260
	June	4,203	712	158	896	320	3,857	255
	July	4,363	550	91	835	256	3,913	253
	August	4,340	616	-148	693	238	3,876	257
	September	4,350	611	-24	903	353	3,681	258
	October	4,223	686	14	971	272	3,680	258
	November	4,010	583	-20	975	305	3,294	258
	December	4,050	633	261	1,091	330	3,523	250
	Average	4,080	610	1	829	289	3,572	-
1988	January	3,988	639	-143	785	354	3,345	254
	February	3,941	570	-35	726	318	3,433	255
	March	4,175	603	-269	656	328	3,525	264
	April*	4,052	697	-97	832	288	3,533	267
	4-Mo. Average	4,040	628	-138	749	322	3,459	-
1987	4-Mo. Average	3,837	600	-129	666	267	3,375	-
1986	4-Mo. Average	3,827	508	-113	835	289	3,098	-

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Ending stocks and stock withdrawal for 1986 are slightly different from those published in the 1986 *Petroleum Supply Annual* (PSA)—Volume 1.

PSA statistics inadvertently omitted stocks of other hydrocarbons and alcohol.

* See Explanatory Note 9.6.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

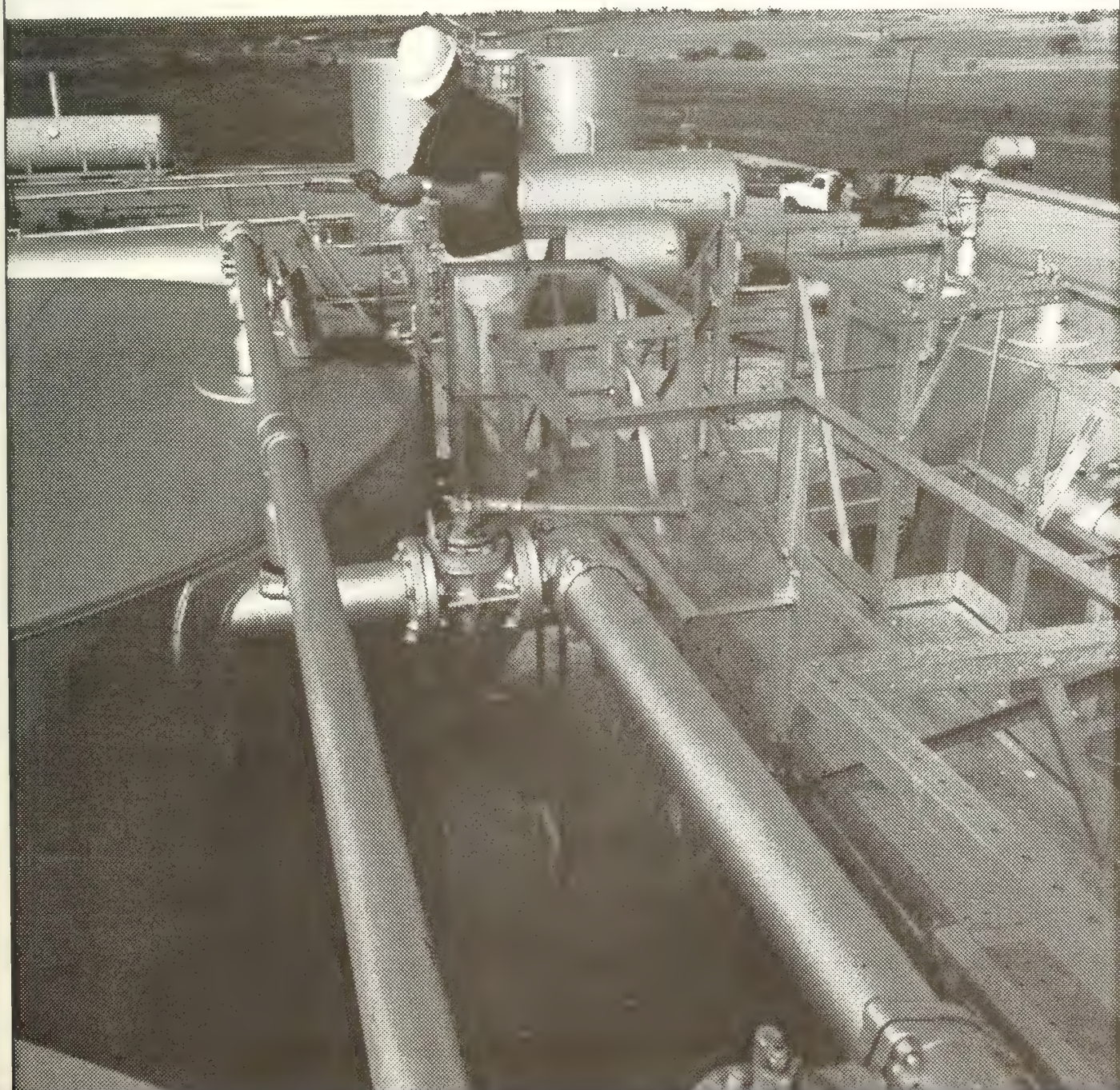
Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1987: EIA, *Petroleum Supply Annual*.
4. January 1988 through April 1988: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6.)
5. May 1988: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 1.1.)
6. January 1988 through May 1988: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey. (See Explanatory Note 3.)

[illegible]

Detailed Statistics



THE UNIVERSITY OF CHICAGO

Table 1. U.S. Petroleum Balance, April 1988

	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 60,876	E 2,029	E 247,535	E 2,046
(2) Lower 48 States	E 187,152	E 6,238	E 757,738	E 6,262
(3) Total U.S.	E 248,028	E 8,268	E 1,005,273	E 8,308
Net Imports				
(4) Imports (Gross Excluding SPR)	151,457	5,049	574,958	4,752
(5) SPR Imports	2,325	78	6,528	54
(6) Exports	3,508	117	21,148	175
(7) Imports (Net Including SPR)	150,274	5,009	560,338	4,631
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-2,320	-77	-6,610	-55
(9) Other Stock Withdrawal (+) or Addition (-)	-3,506	-117	-7,842	-65
(10) Product Supplied and Losses	-1,264	-42	-5,504	-45
(11) Unaccounted for 1	3,794	126	25,552	211
(12) Total Other Sources	-3,296	-110	5,596	46
(13) Crude Input to Refineries	395,006	13,167	1,571,207	12,985
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	48,273	1,609	193,599	1,600
(15) Net Imports 2	287	10	1,349	11
(16) Stock Withdrawal (+) or Addition (-) 2	-975	-33	-1,563	-13
(17) Total NGPL Supply	47,585	1,586	193,385	1,598
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	110	4	-8,828	-73
(19) Imports	13,664	455	46,817	387
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,756	59	7,097	59
(21) Refinery Processing Gain 1	19,554	652	81,369	672
(22) Crude Oil Product Supplied	1,259	42	5,489	45
(23) Total Other Liquids	36,343	1,211	131,944	1,090
(23) = (18) through (22)				
(24) Total Production of Products 3	478,934	15,964	1,896,536	15,674
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross)	43,698	1,457	206,870	1,710
(26) Exports	16,788	560	77,737	642
(27) Imports (Net)	26,910	897	129,134	1,067
(28) Total New Supply of Products	505,845	16,861	2,025,670	16,741
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3	-12,640	-421	54,854	453
(30) Total Petroleum Products Supplied for Domestic Use	493,205	16,440	2,080,524	17,194
(30) = (28) + (29)				
(31) Finished Motor Gasoline	221,531	7,384	856,920	7,082
(32) Distillate Fuel Oil	86,087	2,870	406,806	3,362
(33) Residual Fuel Oil	38,174	1,272	177,981	1,471
(34) Liquefied Petroleum Gases	40,176	1,339	214,800	1,775
(35) Other 4	105,978	3,533	418,528	3,459
(36) Crude Oil	1,259	42	5,489	45
(37) Total Product Supplied	493,205	16,440	2,080,524	17,194
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	357,131	--	357,131	--
(39) Strategic Petroleum Reserve (SPR)	547,258	--	547,258	--
(40) Unfinished Oils	102,847	--	102,847	--
(41) Gasoline Blending Components 5	37,250	--	37,250	--
(42) Pentanes Plus	8,594	--	8,594	--
(43) Finished Refined Products 3	524,760	--	524,760	--
(44) Total Stocks	1,577,840	--	1,577,840	--

1 A balancing item.

2 Includes products in the pentanes plus category only.

3 For products included see Explanatory Note 9.7.

4 Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

5 Includes other hydrocarbons and alcohol.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 248,028	0	153,782	-5,826	3,794	5	395,006	3,508	1,259
Natural Gas Liquids and LRGs	48,152	14,630	6,487	-11,838	0	0	12,066	1,357	44,009
Pentanes Plus	8,916	0	346	-975	0	0	4,396	59	3,832
Liquefied Petroleum Gases	39,236	14,630	6,141	-10,863	0	0	7,670	1,298	40,176
Ethane	14,999	274	50	152	0	0	68	118	15,289
Propane	15,452	10,295	2,639	-8,297	0	0	231	804	19,054
Normal Butane	4,558	3,594	2,236	-2,326	0	0	3,182	317	4,563
Isobutane	4,227	467	1,216	-392	0	0	4,189	59	1,270
Other Liquids	1,756	0	13,664	110	0	0	20,550	0	-5,020
Other Hydrocarbons and Alcohol	1,756	0	0	9	0	0	1,765	0	0
Unfinished Oils	0	0	12,228	-713	0	0	14,617	0	-3,102
Motor Gasoline Blending Components	0	0	1,436	862	0	0	4,146	0	-1,848
Aviation Gasoline Blending Components	0	0	0	-48	0	0	22	0	-70
Finished Petroleum Products	121	432,546	37,557	-1,777	0	0	0	15,490	452,957
Finished Motor Gasoline	9	207,176	10,459	4,440	0	0	0	553	221,531
Finished Leaded Motor Gasoline	8	41,499	272	1,678	0	0	0	310	43,147
Finished Unleaded Motor Gasoline	1	165,677	10,187	2,762	0	0	0	243	178,384
Finished Aviation Gasoline	0	678	2	30	0	0	0	0	710
Naphtha-Type Jet Fuel	0	6,089	89	443	0	0	0	3	6,618
Kerosene-Type Jet Fuel	0	32,641	2,496	278	0	0	0	392	35,023
Kerosene	0	1,490	229	370	0	0	0	11	2,078
Distillate Fuel Oil	53	86,026	6,254	-4,978	0	0	0	1,268	86,087
Residual Fuel Oil	0	28,520	13,937	812	0	0	0	5,095	38,174
Naphtha < 400 Deg. for Petro. Feed. Use	0	4,543	2,268	81	0	0	0	128	6,764
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,599	0	-534	0	0	0	578	6,487
Special Naphthas	0	1,770	419	-141	0	0	0	91	1,957
Lubricants	0	5,343	358	-195	0	0	0	974	4,532
Waxes	0	561	46	-48	0	0	0	43	516
Petroleum Coke	0	15,796	23	-246	0	0	0	6,296	9,277
Asphalt and Road Oil	0	11,789	922	-1,981	0	0	0	4	10,726
Still Gas	0	20,445	0	0	0	0	0	0	20,445
Miscellaneous Products	59	2,080	55	-108	0	0	0	54	2,032
Total	298,057	447,176	211,490	-19,331	3,794	5	427,622	20,354	493,205
Total	298,057	447,176	211,490	-19,331	3,794	5	427,622	20,354	1,577,840

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - April 1988
(Thousand Barrels)

(Thousand Barrels)		Commodity	Supply			Disposition					
			Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)		E 1,005,273	0	581,486	-14,452	25,552	15	1,571,207	21,148	5,489	904,389
Natural Gas Liquids and LRGs		193,118	57,020	26,934	15,918	0	0	55,885	5,380	231,725	88,265
Pentanes Plus		36,025	0	1,590	-1,563	0	0	18,886	241	16,925	8,594
Liquefied Petroleum Gases		157,093	57,020	25,344	17,481	0	0	36,999	5,140	214,800	79,671
Ethane		56,870	989	211	4,775	0	0	228	484	62,133	17,484
Propane		62,567	40,946	13,265	10,310	0	0	935	3,184	122,969	37,539
Normal Butane		20,305	13,580	7,296	1,618	0	0	19,833	1,231	21,735	14,930
Isobutane		17,351	1,505	4,572	778	0	0	16,003	241	7,962	9,718
Other Liquids		7,097	0	46,817	-8,828	0	0	71,783	0	-26,697	140,097
Other Hydrocarbons and Alcohol		7,097	0	0	-141	0	0	6,956	0	0	573
Unfinished Oils		0	0	41,468	-9,662	0	0	50,520	0	-18,714	102,847
Motor Gasoline Blending Components		0	0	5,349	948	0	0	14,210	0	-7,913	36,448
Aviation Gasoline Blending Components		0	0	0	27	0	0	97	0	-70	229
Finished Petroleum Products		481	1,723,224	181,526	37,373	0	0	0	72,597	1,870,007	445,089
Finished Motor Gasoline		38	818,441	40,947	-614	0	0	0	1,892	856,920	189,508
Finished Leaded Motor Gasoline		34	162,270	1,193	5,947	0	0	0	826	168,618	47,248
Finished Unleaded Motor Gasoline		4	656,171	39,754	-6,561	0	0	0	1,066	688,302	142,260
Finished Aviation Gasoline		0	2,461	4	377	0	0	0	0	2,842	1,954
Naphtha-Type Jet Fuel		0	23,440	314	1,243	0	0	0	17	24,980	6,713
Kerosene-Type Jet Fuel		0	144,263	9,754	2,701	0	0	0	5,515	151,203	39,270
Kerosene		0	10,243	2,230	2,467	0	0	0	168	14,772	5,980
Distillate Fuel Oil		181	341,283	34,364	40,192	0	0	0	9,214	406,806	94,290
Residual Fuel Oil		0	117,991	78,654	4,092	0	0	0	22,756	177,981	43,245
Naphtha < 400 Deg. for Petro. Feed. Use		0	15,771	8,214	13	0	0	0	500	23,498	2,323
Other Oils > 400 Deg. for Petro. Feed. Use		0	27,655	759	-395	0	0	0	2,198	25,821	1,996
Special Naphthas		0	6,656	1,315	186	0	0	0	384	7,773	3,467
Lubricants		0	21,432	1,464	-750	0	0	0	2,875	19,271	14,067
Waxes		0	2,101	190	-54	0	0	0	155	2,082	837
Petroleum Coke		0	66,005	162	-691	0	0	0	26,663	38,813	7,451
Asphalt and Road Oil		0	37,405	2,955	-11,805	0	0	0	20	28,535	30,604
Still Gas		0	79,842	0	0	0	0	0	0	79,842	0
Miscellaneous Products		262	8,235	200	411	0	0	0	241	8,867	3,384
Total		1,205,969	1,780,244	836,763	30,011	25,552	15	1,698,875	99,125	2,080,524	1,577,840

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels per Day)

(Thousand Barrels per Day)									
Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)									
E 8,268	0	5,126	-194	126	(s)	13,167	117	42	
Natural Gas Liquids and LRGs									
1,605	488	216	-395	0	0	402	45	1,467	
297	0	12	-33	0	0	147	2	128	
1,308	488	205	-362	0	0	256	43	1,339	
	9	2	5	0	0	2	4	510	
	343	88	-277	0	0	8	27	635	
	120	75	-78	0	0	106	11	152	
	16	41	-13	0	0	140	2	42	
Other Liquids									
59	0	455	4	0	0	685	0	-167	
	59	0	(s)	0	0	59	0	0	
	0	408	-24	0	0	487	0	-103	
	0	48	29	0	0	138	0	-62	
	0	0	-2	0	0	1	0	-2	
Aviation Gasoline Blending Components									
Finished Petroleum Products									
4	14,418	1,252	-59	0	0	0	516	15,099	
(s)	6,906	349	148	0	0	0	18	7,384	
(s)	1,383	9	56	0	0	0	10	1,438	
(s)	5,523	340	92	0	0	0	8	5,946	
	23	(s)	1	0	0	0	0	24	
	203	3	15	0	0	0	(s)	221	
	1,088	83	9	0	0	0	13	1,167	
	50	8	12	0	0	0	69	0	
	2,868	208	-166	0	0	0	42	2,870	
	951	465	27	0	0	0	170	1,272	
	151	76	3	0	0	0	4	225	
	253	0	-18	0	0	0	19	216	
	59	14	-5	0	0	0	3	65	
	178	12	-7	0	0	0	32	151	
	19	2	-2	0	0	0	1	17	
	527	1	-8	0	0	0	210	309	
	393	31	-66	0	0	0	(s)	358	
	682	0	0	0	0	0	0	682	
	69	2	-4	0	0	0	2	68	
9,935	14,906	7,050	-644	126	(s)	14,254	678	16,440	
Total									

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - April 1988
(Thousand Barrels per Day)

(Thousands Barrels per Day)									
Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,308	0	4,806	-119	211	(s)	12,985	175	45
Natural Gas Liquids and LRGs	1,596	471	223	132	0	0	462	44	1,915
Pentanes Plus	298	0	13	-13	0	0	156	2	140
Liquefied Petroleum Gases	1,298	471	209	144	0	0	306	42	1,775
Ethane	470	8	2	39	0	0	2	4	513
Propane	517	338	110	85	0	0	8	26	1,016
Normal Butane	168	112	60	13	0	0	164	10	180
Isobutane	143	12	38	6	0	0	132	2	66
Other Liquids	59	0	387	-73	0	0	593	0	-221
Other Hydrocarbons and Alcohol	59	0	0	-1	0	0	57	0	0
Unfinished Oils	0	0	343	-80	0	0	418	0	-155
Motor Gasoline Blending Components	0	0	44	8	0	0	117	0	-65
Aviation Gasoline Blending Components	0	0	0	(s)	0	0	1	0	-1
Finished Petroleum Products	4	14,242	1,500	309	0	0	0	600	15,455
Finished Motor Gasoline	(s)	6,764	338	-5	0	0	0	16	7,082
Finished Leaded Motor Gasoline	(s)	1,341	10	49	0	0	0	7	1,394
Finished Unleaded Motor Gasoline	(s)	5,423	329	-54	0	0	0	9	5,688
Finished Aviation Gasoline	0	20	(s)	3	0	0	0	0	23
Naphtha-Type Jet Fuel	0	194	3	10	0	0	0	(s)	206
Kerosene-Type Jet Fuel	0	1,192	81	22	0	0	0	46	1,250
Kerosene	0	85	18	20	0	0	0	1	122
Distillate Fuel Oil	1	2,821	284	332	0	0	0	76	3,362
Residual Fuel Oil	0	975	650	34	0	0	0	188	1,471
Naphtha < 400 Deg. for Petro. Feed, Use	0	130	68	(s)	0	0	0	4	194
Other Oils > 400 Deg. for Petro. Feed, Use	0	229	6	-3	0	0	0	18	213
Special Naphthas	0	55	11	2	0	0	0	3	64
Lubricants	0	177	12	-6	0	0	0	24	159
Waxes	0	17	2	(s)	0	0	0	1	17
Petroleum Coke	0	545	1	-6	0	0	0	220	321
Asphalt and Road Oil	0	309	24	-98	0	0	0	(s)	236
Still Gas	0	660	0	0	0	0	0	0	660
Miscellaneous Products	2	68	2	3	0	0	0	2	73
Total	9,967	14,713	6,915	248	211	(s)	14,040	819	17,194

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 6. PAD District I--Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 1,158	0	30,630	-2,128	2,238	2,060	0	33,958	0	0	16,973
Natural Gas Liquids and LRGs	822	1,377	1,367	-256	0	1,715	0	107	51	4,867	3,186
Liquefied Petroleum Gases	706	1,377	1,060	-261	0	1,715	0	80	51	4,466	3,144
Pentanes Plus	116	0	307	5	0	0	0	27	0	401	42
Other Liquids	52	0	5,003	1,400	0	139	0	7,825	0	-1,231	14,922
Other Hydrocarbons and Alcohol	52	0	0	5	0	0	0	57	0	0	77
Unfinished Oils	0	0	3,567	889	0	160	0	5,670	0	-1,054	10,517
Motor Gasoline Blending Components	0	0	1,436	506	0	-21	0	2,098	0	-177	4,328
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	0	42,356	30,263	8,169	0	65,216	0	0	601	145,403	131,599
Finished Motor Gasoline	0	20,511	8,698	4,106	0	38,841	0	0	14	72,142	59,045
Finished Leaded Motor Gasoline	0	2,058	230	1,076	0	5,964	0	0	3	9,325	11,300
Finished Unleaded Motor Gasoline	0	18,453	8,468	3,030	0	32,877	0	0	12	62,816	47,745
Finished Aviation Gasoline	0	12	0	-24	0	152	0	0	0	140	370
Naphtha-Type Jet Fuel	0	459	0	-25	0	239	0	0	2	671	1,169
Kerosene-Type Jet Fuel	0	2,046	1,944	-87	0	10,051	0	0	21	13,933	9,506
Kerosene	0	-11	229	162	0	356	0	0	8	728	2,420
Distillate Fuel Oil	0	8,517	5,916	2,976	0	13,273	0	0	11	30,671	30,101
Residual Fuel Oil	0	3,970	12,043	1,528	0	742	0	0	2	18,281	16,125
Petrochemical Feedstocks ²	0	423	328	-60	0	-22	0	0	49	620	410
Special Naphthas	0	56	23	33	0	296	0	0	9	399	1,088
Lubricants	0	666	306	61	0	877	0	0	333	1,577	3,184
Waxes	0	73	27	0	0	11	0	0	5	106	62
Petroleum Coke	0	1,164	0	85	0	0	0	0	118	1,131	572
Asphalt and Road Oil	0	2,356	697	-434	0	339	0	0	1	2,957	6,766
Still Gas	0	1,804	0	0	0	0	0	0	0	1,804	0
Miscellaneous Products	0	310	52	-152	0	61	0	0	26	245	781
Total	2,032	43,733	67,262	7,185	2,238	69,130	0	41,890	652	149,039	166,680

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 7. PAD District II—Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels)

(Thousand Barrels)											
Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unac-counted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 25,479	0	16,296	-3,842	1,113	47,940	0	86,644	342	0	77,545
Natural Gas Liquids and LRGs	9,248	2,623	2,361	-3,916	0	879	0	3,192	521	7,482	25,591
Liquefied Petroleum Gases	7,886	2,623	2,323	-3,119	0	193	0	2,359	462	7,085	22,379
Pentanes Plus	1,362	0	38	-797	0	686	0	833	59	397	3,212
Other Liquids	353	0	0	153	0	-50	0	2,213	0	-1,757	24,628
Other Hydrocarbons and Alcohol	353	0	0	-44	0	0	0	309	0	0	194
Unfinished Oils	0	0	0	-436	0	0	0	399	0	-835	17,034
Motor Gasoline Blending Components	0	0	0	671	0	-50	0	1,473	0	-852	7,243
Aviation Gasoline Blending Components	0	0	0	-38	0	0	0	32	0	-70	157
Finished Petroleum Products	3	93,536	654	-2,267	0	23,408	0	0	319	115,015	116,436
Finished Motor Gasoline	0	50,330	155	2,729	0	13,512	0	0	74	66,652	55,606
Finished Leaded Motor Gasoline	0	9,931	1	1,330	0	3,122	0	0	2	14,382	14,981
Finished Unleaded Motor Gasoline	0	40,399	154	1,399	0	10,390	0	0	72	52,270	40,625
Finished Aviation Gasoline	0	136	0	-153	0	150	0	0	0	133	637
Naphtha-Type Jet Fuel	0	728	89	414	0	43	0	0	0	1,274	1,225
Kerosene-Type Jet Fuel	0	5,033	56	-69	0	2,073	0	0	0	7,093	8,526
Kerosene	0	173	0	76	0	-111	0	0	1	137	1,708
Distillate Fuel Oil	0	20,707	164	-3,277	0	6,935	0	0	6	24,523	26,538
Residual Fuel Oil	0	2,055	79	-304	0	55	0	0	0	1,885	3,175
Petrochemical Feedstocks ²	0	1,541	9	28	0	68	0	0	75	1,571	381
Special Naphthas	0	353	78	48	0	149	0	0	5	623	501
Lubricants	0	857	8	-117	0	218	0	0	53	913	2,364
Waxes	0	40	10	11	0	0	0	0	2	59	96
Petroleum Coke	0	3,339	0	-356	0	0	0	0	99	2,884	2,105
Asphalt and Road Oil	0	3,828	3	-1,289	0	316	0	0	(s)	2,858	13,247
Still Gas	0	4,022	0	0	0	0	0	0	0	4,022	0
Miscellaneous Products	3	394	3	-8	0	0	0	0	3	389	327
Total	35,083	96,159	19,311	-9,872	1,113	72,177	0	92,049	1,181	120,741	244,200

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 8. PAD District III--Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels)

Commodity	Supply				Net Receipts	Disposition			Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)		Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 111,036	0	99,172	-3,197	-1,871	2	181,995	0	0
Natural Gas Liquids and LRGs	31,905	8,360	2,255	-7,442	0	0	7,602	556	26,166
Liquefied Petroleum Gases	26,501	8,360	2,254	-7,252	0	0	4,318	556	24,710
Pentanes Plus	5,404	0	1	-190	0	0	3,284	0	1,456
Other Liquids	1,141	0	8,661	-481	0	0	9,846	0	-614
Other Hydrocarbons and Alcohol	1,141	0	0	40	0	0	1,181	0	0
Unfinished Oils	0	0	8,661	-345	0	0	8,883	0	-727
Motor Gasoline Blending Components	0	0	0	-176	0	0	71	0	113
Aviation Gasoline Blending Components	0	0	0	0	0	0	-218	0	0
Finished Petroleum Products	116	200,304	4,722	-3,686	0	0	0	7,510	102,514
Finished Motor Gasoline	9	94,003	713	-1,114	0	0	0	434	39,423
Finished Leaded Motor Gasoline	8	17,838	0	-700	0	0	0	280	7,529
Finished Unleaded Motor Gasoline	1	76,165	713	-414	0	0	0	155	31,893
Finished Aviation Gasoline	0	346	0	134	0	0	0	0	156
Naphtha-Type Jet Fuel	0	3,001	0	282	0	0	0	0	2,719
Kerosene-Type Jet Fuel	0	15,903	190	960	0	0	0	324	3,897
Kerosene	0	1,096	0	156	0	0	0	0	1,006
Distillate Fuel Oil	53	39,971	0	-2,871	0	0	0	357	16,160
Residual Fuel Oil	0	10,066	1,521	-1,027	0	0	0	1,654	8,109
Petrochemical Feedstocks ²	0	9,642	1,894	-387	0	0	0	371	10,732
Special Naphthas	0	1,248	312	-122	0	0	0	74	919
Lubricants	0	3,247	26	-116	0	0	0	399	1,696
Waxes	0	335	2	-47	0	0	0	29	250
Petroleum Coke	0	7,073	0	260	0	0	0	0	3,485
Asphalt and Road Oil	0	3,432	64	196	0	0	0	3,848	2,844
Still Gas	0	9,765	0	0	0	0	0	(s)	3,037
Miscellaneous Products	54	1,176	0	10	0	0	0	0	9,765
Total	144,198	208,664	114,811	-14,806	-1,871	2	199,443	8,066	128,066
									967,923

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 9. PAD District IV--Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 17,046	0	1,781	43	1,995	-7,951	0	12,914	0	0	13,756
Natural Gas Liquids and LRGs	3,607	299	288	-18	0	-1,839	0	468	35	1,834	1,095
Liquefied Petroleum Gases	2,844	299	288	-26	0	-1,628	0	408	35	1,334	950
Pentanes Plus	763	0	0	8	0	-211	0	60	0	500	145
Other Liquids	7	0	0	-117	0	0	0	-190	0	80	4,210
Other Hydrocarbons and Alcohol	7	0	0	-1	0	0	0	6	0	0	9
Unfinished Oils	0	0	0	-365	0	0	0	-492	0	127	2,189
Motor Gasoline Blending Components	0	0	0	249	0	0	0	296	0	-47	2,012
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	2	13,296	170	-23	0	-449	0	0	6	12,990	12,501
Finished Motor Gasoline	0	6,771	65	259	0	-546	0	0	0	6,549	5,073
Finished Leaded Motor Gasoline	0	2,492	5	171	0	-448	0	0	0	2,220	2,158
Finished Unleaded Motor Gasoline	0	4,279	60	88	0	-98	0	0	0	4,329	2,915
Finished Aviation Gasoline	0	18	0	1	0	22	0	0	0	41	64
Naphtha-Type Jet Fuel	0	392	0	-56	0	-140	0	0	0	196	414
Kerosene-Type Jet Fuel	0	607	0	84	0	494	0	0	0	1,185	791
Kerosene	0	-12	0	16	0	0	0	0	0	4	41
Distillate Fuel Oil	0	3,587	104	-164	0	-279	0	0	0	3,248	2,431
Residual Fuel Oil	0	336	0	-6	0	0	0	0	0	330	367
Petrochemical Feedstocks ²	0	-16	0	16	0	0	0	0	1	-1	23
Special Naphthas	0	0	0	0	0	0	0	0	0	0	7
Lubricants	0	27	0	-5	0	0	0	0	5	17	79
Waxes	0	52	0	-16	0	0	0	0	(s)	36	86
Petroleum Coke	0	325	0	-21	0	0	0	0	0	304	60
Asphalt and Road Oil	0	637	1	-127	0	0	0	0	1	510	3,031
Still Gas	0	531	0	0	0	0	0	0	0	531	0
Miscellaneous Products	2	41	0	-4	0	0	0	0	(s)	39	34
Total	20,662	13,595	2,239	-115	1,995	-10,239	0	13,192	41	14,904	31,562

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 10. PAD District V--Supply and Disposition of Crude Oil and Petroleum Products, April 1988
(Thousand Barrels)

Commodity	Supply					Net Receipts	Disposition				Ending Stocks
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹		Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 93,309	0	5,903	3,298	319	-18,906	3	79,495	3,166	1,259	76,254
Natural Gas Liquids and LRGs	2,570	1,971	215	-206	0	0	0	697	193	3,660	1,571
Liquefied Petroleum Gases	1,299	1,971	215	-205	0	0	0	505	193	2,582	1,516
Pentanes Plus	1,271	0	0	-1	0	0	0	192	0	1,078	55
Other Liquids	203	0	0	-845	0	0	0	856	0	-1,498	31,932
Other Hydrocarbons and Alcohol	203	0	0	9	0	0	0	212	0	0	26
Unfinished Oils	0	0	0	-456	0	0	0	157	0	-613	23,544
Motor Gasoline Blending Components	0	0	0	-388	0	0	0	497	0	-885	8,329
Aviation Gasoline Blending Components	0	0	0	-10	0	0	0	-10	0	0	33
Finished Petroleum Products	0	83,054	1,748	-3,970	0	3,257	0	0	7,054	77,035	57,718
Finished Motor Gasoline	0	35,561	828	-1,540	0	1,947	0	0	30	36,766	22,275
Finished Leaded Motor Gasoline	0	9,180	36	-199	0	699	0	0	26	9,690	7,120
Finished Unleaded Motor Gasoline	0	26,381	792	-1,341	0	1,248	0	0	4	27,076	15,155
Finished Aviation Gasoline	0	166	2	72	0	0	0	0	0	240	329
Naphtha-Type Jet Fuel	0	1,509	0	-172	0	422	0	0	0	1,759	1,568
Kerosene-Type Jet Fuel	0	9,052	306	-610	0	214	0	0	47	8,915	7,097
Kerosene	0	244	0	-40	0	0	0	0	1	203	304
Distillate Fuel Oil	0	13,244	70	-1,642	0	707	0	0	894	11,485	10,817
Residual Fuel Oil	0	12,093	294	621	0	0	0	0	3,439	9,569	8,231
Petrochemical Feedstocks ²	0	552	37	-50	0	0	0	0	211	328	349
Special Naphthas	0	113	6	-100	0	0	0	0	3	16	221
Lubricants	0	546	18	-18	0	-33	0	0	184	329	1,701
Waxes	0	61	7	4	0	0	0	0	8	64	126
Petroleum Coke	0	3,895	23	-214	0	0	0	0	2,231	1,473	1,870
Asphalt and Road Oil	0	1,536	157	-327	0	0	0	0	2	1,364	2,467
Still Gas	0	4,323	0	0	0	0	0	0	0	4,323	0
Miscellaneous Products	0	159	0	46	0	0	0	0	5	200	363
Total	96,082	85,025	7,866	-1,723	319	-15,649	3	81,048	10,414	80,455	167,475

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 11. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	February 1988		January - February	
	Total	Daily Average	Total	Daily Average
PAD District I, Total	E 1,186	E 41	E 2,370	E 40
Florida	652	22	1,364	23
New York	E 48	E 2	E 93	E 2
Pennsylvania	E 231	E 8	E 448	E 7
Virginia	E 1	E 0	E 2	E 0
West Virginia	229	8	434	7
Adjustment ¹	25	1	29	1
PAD District II, Total	E 25,120	E 866	E 50,921	E 849
Illinois	1,990	69	4,040	67
Indiana	281	10	574	10
Kansas	4,789	165	9,539	159
Kentucky	441	15	841	14
Michigan	E 1,969	E 68	E 4,042	E 67
Missouri	9	(s)	18	(s)
Nebraska	460	16	936	16
North Dakota	3,159	109	6,515	109
Ohio	E 907	E 31	E 1,792	E 30
Oklahoma	10,972	378	21,930	366
South Dakota	138	5	285	5
Tennessee	49	2	E 97	E 2
Adjustment ¹	-44	-1	312	5
PAD District III, Total	E 108,245	E 3,733	E 223,590	E 3,726
Alabama	1,703	59	3,530	59
Arkansas	E 1,122	E 39	E 2,250	E 38
Louisiana ²	13,547	467	27,915	465
Mississippi	2,191	76	4,535	76
New Mexico	5,759	199	11,725	195
Texas ²	59,848	2,064	123,480	2,058
Federal Offshore PAD District III	23,566	813	E 49,528	E 825
Adjustment ¹	509	18	627	10
PAD District IV, Total	E 16,556	E 571	E 33,739	E 562
Colorado	E 2,494	E 86	E 4,955	E 83
Montana	1,916	66	3,939	66
Utah	2,745	95	5,669	94
Wyoming	9,308	321	19,256	321
Adjustment ¹	93	3	-80	-1
PAD District V, Total	91,785	3,165	187,854	3,131
Alaska ²	60,020	2,070	121,989	2,033
South Alaska	1,259	43	2,598	43
North Slope	58,761	2,026	119,394	1,990
Adjustment for Alaska ¹	0	0	-3	(s)
Arizona	10	(s)	20	(s)
California ²	28,559	985	59,106	985
Nevada	242	8	503	8
Federal Offshore PAD District V	2,397	83	5,065	84
Adjustment for Arizona, California, and Nevada ¹	557	19	1,171	20
U.S. Total²	E 242,892	E 8,376	E 498,474	E 8,308

¹ These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

² Includes the following current month offshore production (thousand barrels): Alaska: State - 4,494; California: State - 2,336; Louisiana: State - 2,062; Texas: State - 120; U.S. Total, including Federal offshore - 34,974.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: State Conservation Agencies and the U.S. Minerals Management Service.

Table 12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District, April 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				Total	New Mexico	PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast	United States	
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast						N. La., Ark.
Natural Gas Liquids	243	579	822	735	455	8,058	9,248	18,856	2,730	6,643	573	3,103	31,905	3,607	2,570	48,152
Pentanes Plus	45	71	116	131	104	1,127	1,362	3,391	300	1,123	170	420	5,404	763	1,271	8,916
Liquefied Petroleum Gases	198	508	706	604	351	6,931	7,886	15,465	2,430	5,520	403	2,683	26,501	2,844	1,299	39,236
Ethane	55	179	234	124	1	2,533	2,658	6,424	1,142	2,483	69	1,196	11,314	792	1	14,999
Propane	91	227	318	286	212	2,895	3,393	5,749	1,329	1,843	182	960	10,063	1,309	369	15,452
Normal Butane	41	71	112	100	132	974	1,206	2,402	-1,399	584	110	354	2,051	517	672	4,558
Isobutane	11	31	42	94	6	529	629	890	1,358	610	42	173	3,073	226	257	4,227
Finished Petroleum Products	0	0	0	1	0	2	3	44	54	7	11	0	116	2	0	121
Finished Motor Gasoline	0	0	0	0	0	0	0	1	8	0	0	0	9	0	0	9
Finished Leaded Motor Gasoline	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	8
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	46	7	0	0	53	0	0	53
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	1	0	2	3	43	0	0	11	0	54	2	0	59
Total Production	243	579	822	736	455	8,060	9,251	18,900	2,784	6,650	584	3,103	32,021	3,609	2,570	48,273

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, April 1988
(Thousand Barrels, Except Where Noted)

(Thousand Barrels, Except Where Noted)																
Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky. *	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	West Coast
Crude Oil (including lease condensate)	31,773	2,185	33,958	58,140	8,936	19,568	86,644	14,866	94,148	65,937	5,002	2,042	181,995	12,914	79,495	395,006
Pentanes Plus	26	1	27	376	49	408	833	987	1,556	423	172	146	3,284	60	192	4,396
Liquefied Petroleum Gases	80	0	80	1,758	135	466	2,359	502	1,389	2,274	108	45	4,318	408	505	7,670
Ethane	0	0	0	0	0	0	0	0	0	68	0	0	68	0	0	68
Propane	0	0	0	70	0	0	70	0	117	42	0	2	161	0	0	231
Normal Butane	11	0	11	705	78	112	895	207	418	992	30	13	1,660	317	299	3,182
Isobutane	69	0	69	983	57	354	1,394	295	854	1,172	78	30	2,429	91	206	4,189
Other Liquids																
Other Hydrocarbons and Alcohol	57	0	57	297	1	11	309	1	807	351	0	22	1,181	6	212	1,765
Unfinished Oil (net)	5,478	192	5,670	794	-121	-274	399	345	7,893	683	-18	-20	8,883	-492	157	14,617
Motor Gasoline Blending Components (net)	2,153	-55	2,098	1,331	-86	228	1,473	-91	-560	443	7	-17	-218	296	497	4,146
Aviation Gasoline Blending Components (net)	0	0	0	27	0	5	32	0	0	0	0	0	0	0	-10	22
Total Input to Refineries	39,567	2,323	41,890	62,723	8,914	20,412	92,049	16,610	105,233	70,111	5,271	2,218	199,443	13,192	81,048	427,622
Crude Oil Distillation																
Gross Input (daily average)	1,062	73	1,135	1,941	298	654	2,894	498	3,165	2,240	165	68	6,136	432	2,734	13,330
Operable Capacity (daily average)	1,352	108	1,460	2,231	312	734	3,277	585	3,558	2,947	255	76	7,420	534	3,170	15,861
Operating Ratio (percent) ¹	78.5	67.7	77.7	87.0	95.6	89.1	88.3	85.2	88.9	76.0	64.9	90.3	82.7	80.8	86.3	84.0
Downstream Processing																
Fresh Feed Input (daily average)																
Catalytic Cracking	508	6	514	639	101	223	964	190	1,249	704	28	23	2,193	130	695	4,496
Catalytic Hydrocracking	53	3	56	123	0	5	129	0	191	189	0	0	380	3	365	932
Cokers	61	0	61	134	58	66	259	10	214	282	10	0	515	18	433	1,285
Crude Oil Qualities																
Sulfur Content, Weighted Average (percent)	.83	.49	.81	1.44	2.24	.53	1.32	.85	.97	1.27	1.38	.79	1.08	.74	1.23	1.13
API Gravity, Weighted Average	31.37	39.20	31.89	35.00	30.40	37.46	35.08	38.16	33.65	31.41	33.57	40.21	33.30	36.60	25.04	32.00
Operable Capacity (daily average)																
Operating	1,352	108	1,460	2,231	312	734	3,277	585	3,558	2,947	255	76	7,420	534	3,170	15,861
Idle	1,284	108	1,391	2,155	312	704	3,171	526	3,386	2,549	248	76	6,784	534	3,040	14,921
	69	0	69	76	0	30	106	59	172	398	7	0	636	(s)	130	941
Alaskan Crude Oil Receipts	1,132	0	1,132	1,198	0	0	1,198	0	5,490	4,845	0	0	10,335	0	41,870	54,535

¹ Represents gross input divided by operable capacity.

(s) = Less than 500 barrels.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 14. Refinery Net Production of Petroleum Products by PAD District, April 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky. *	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Liquefied Refinery Gases	1,370	7	1,377	1,974	216	433	2,623	373	3,894	3,922	92	79	8,360	299	1,971	14,630
Ethane	58	0	58	0	0	0	0	-9	208	-4	0	0	195	0	21	274
Propane	1,082	7	1,089	1,970	197	484	2,651	446	3,036	1,804	77	53	5,416	183	956	10,295
Normal Butane	162	0	162	14	18	-63	-31	-298	637	2,137	15	21	2,512	121	830	3,594
Isobutane	68	0	68	-10	1	12	3	234	13	-15	0	5	237	-5	164	467
Finished Motor Gasoline	19,859	652	20,511	34,657	4,666	11,007	50,330	8,380	49,123	33,730	1,607	1,163	94,003	6,771	35,561	207,176
Finished Leaded Motor Gasoline	1,964	94	2,058	4,861	1,382	3,688	9,931	2,558	8,069	6,434	351	426	17,838	2,492	9,180	41,499
Finished Unleaded Motor Gasoline	17,895	558	18,453	29,796	3,284	7,319	40,399	5,822	41,054	27,296	1,256	737	76,165	4,279	26,381	165,677
Finished Aviation Gasoline	12	0	12	126	0	10	136	116	102	128	0	0	346	18	166	678
Naphtha-Type Jet Fuel	459	0	459	471	24	233	728	727	1,238	577	176	283	3,001	392	1,509	6,089
Kerosene-Type Jet Fuel	2,046	0	2,046	3,631	463	939	5,033	1,016	7,848	6,879	126	34	15,903	607	9,052	32,641
Kerosene	-68	57	-11	-26	13	186	173	15	941	137	3	0	1,096	-12	244	1,490
Distillate Fuel Oil	7,718	799	8,517	13,004	2,338	5,365	20,707	3,779	20,641	13,649	1,379	523	39,971	3,587	13,244	86,026
Residual Fuel Oil	3,925	45	3,970	1,689	245	121	2,055	474	5,837	3,525	217	13	10,066	336	12,093	28,520
Naphtha < 400 Deg. for Petro. Feed. Use	420	0	420	719	0	38	757	92	2,962	83	37	-7	3,167	-16	215	4,543
Other Oils > 400 Deg. for Petro. Feed. Use	3	0	3	731	0	53	784	165	4,195	2,115	0	0	6,475	0	337	7,599
Special Naphthas	34	22	56	293	0	60	353	92	1,008	-27	175	0	1,248	0	113	1,770
Lubricants	280	386	666	508	0	349	857	25	2,237	611	374	0	3,247	27	546	5,343
Waxes	0	73	73	9	0	31	40	13	200	70	52	0	335	52	61	561
Petroleum Coke	1,155	9	1,164	2,097	577	665	3,339	358	3,438	3,162	98	17	7,073	325	3,895	15,796
Marketable	236	0	236	1,127	454	428	2,009	50	1,714	2,351	58	0	4,173	160	2,843	9,421
Catalyst	919	9	928	970	123	237	1,330	308	1,724	811	40	17	2,900	165	1,052	6,375
Asphalt and Road Oil	2,237	119	2,356	2,555	450	823	3,828	409	813	1,293	828	89	3,432	637	1,536	11,789
Still Gas	1,701	103	1,804	2,867	380	775	4,022	803	5,752	2,980	157	73	9,765	531	4,323	20,445
Miscellaneous Products	268	42	310	308	39	47	394	23	691	462	0	0	1,176	41	159	2,080
Fuel Use	5	1	6	0	0	0	0	1	0	33	0	0	34	0	0	40
Non-Fuel Use	263	41	304	308	39	47	394	22	691	429	0	0	1,142	41	159	2,040
Total Production	41,419	2,314	43,733	65,613	9,411	21,135	96,159	16,860	110,920	73,296	5,321	2,267	208,664	13,595	85,025	447,176
Processing Gain(-) or Loss(+) ¹	-1,852	9	-1,843	-2,890	-497	-723	-4,110	-250	-5,687	-3,185	-50	-49	-9,221	-403	-3,977	-19,554

¹ Represents the arithmetic difference between input and output.
 * Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."
 Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District, 1 April 1988

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States	
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	N. La., Ark.	New Mexico	Total	PAD Dist. IV Rocky Mts.	PAD Dist. V West Coast	United States
Liquefied Refinery Gases	3.7	0.3	3.5	3.3	2.5	2.2	3.0	2.5	3.8	5.9	1.8	3.9	4.4	2.4	2.5	3.6
Finished Motor Gasoline ²	47.1	29.7	46.1	52.4	51.8	51.3	52.1	45.9	45.0	45.4	26.5	47.8	44.8	48.3	42.9	46.2
Finished Aviation Gasoline ³	.0	.0	.0	.2	.0	.0	.1	.8	.1	.2	.0	.0	.2	.1	.2	.2
Naphtha-Type Jet Fuel	1.2	.0	1.2	.8	.3	1.2	.8	4.8	1.2	.9	3.5	14.0	1.6	3.2	1.9	1.5
Kerosene-Type Jet Fuel	5.5	.0	5.2	6.2	5.3	4.9	5.8	6.7	7.7	10.3	2.5	1.7	8.3	4.9	11.4	8.0
Kerosene	-2	.0	.0	.0	.1	1.0	.2	.1	.9	.2	.1	.0	.6	-.1	.3	.4
Distillate Fuel Oil	20.7	33.6	21.5	22.1	26.5	27.8	23.8	24.8	20.2	20.5	27.7	25.9	20.9	28.9	16.6	21.0
Residual Fuel Oil	10.5	1.9	10.0	2.9	2.8	.6	2.4	3.1	5.7	5.3	4.4	.6	5.3	2.7	15.2	7.0
Naphtha < 400 Deg. for Petro. Feed, Use	1.1	.0	1.1	1.2	.0	.2	.9	.6	2.9	.1	.7	-.3	1.7	-.1	.3	1.1
Other Oils > 400 Deg. for Petro. Feed, Use	.0	.0	.0	1.2	.0	.3	.9	1.1	4.1	3.2	.0	.0	.34	.0	.4	1.9
Special Naphthas	.1	.9	.1	.5	.0	.3	.4	.6	1.0	.9	3.5	.0	.7	.0	.1	.4
Lubricants	.8	16.2	1.7	.9	.0	1.8	1.0	.2	2.2	.9	7.5	.0	1.7	.2	.7	1.3
Waxes	.0	3.1	.2	.0	.0	.2	.0	.1	.2	.1	1.0	.0	.2	.4	.1	.1
Petroleum Coke	3.1	.4	2.9	3.6	6.5	3.4	3.8	2.4	3.4	4.7	2.0	.8	3.7	2.6	4.9	3.9
Asphalt and Road Oil	6.0	5.0	5.9	4.3	5.1	4.3	4.4	2.7	.8	1.9	16.6	4.4	1.8	5.1	1.9	2.9
Still Gas	4.6	4.3	4.6	4.9	4.3	4.0	4.6	5.3	5.6	4.5	3.2	3.6	5.1	4.3	5.4	5.0
Miscellaneous Products	.7	1.8	.8	.5	.4	.2	.5	.2	.7	.7	.0	.0	.6	.3	.2	.5
Processing Gain(-) or Loss(+) ⁴	-5.0	.4	-4.7	-4.9	-5.6	-3.7	-4.7	-1.6	-5.6	-4.8	-1.0	-2.4	-4.8	-3.2	-5.0	-4.8

1 Based on crude oil input and net reruns of unfinished oils.

2 Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

3 Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

4 Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, April 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	30,630	30,996	84,472	1,781	5,903	153,782
Natural Gas Liquids	1,367	2,361	2,255	288	215	6,487
Pentanes Plus	307	38	1	0	0	346
Liquefied Petroleum Gases	1,060	2,323	2,254	288	215	6,141
Ethane	2	42	0	0	6	50
Propane	566	1,427	486	141	19	2,639
Normal Butane	319	556	1,141	96	123	2,236
Isobutane	172	299	627	52	66	1,216
Other Liquids ¹	5,003	238	8,423	0	0	13,664
Unfinished Oils	3,567	238	8,423	0	0	12,228
Naphthas and Lighter	245	238	1,712	0	0	2,195
Kerosene and Light Gas Oils	217	0	370	0	0	587
Heavy Gas Oils	1,999	0	800	0	0	2,799
Residuum	1,106	0	5,541	0	0	6,647
Motor Gasoline Blending Components	1,436	0	0	0	0	1,436
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	30,263	654	4,722	170	1,748	37,557
Finished Motor Gasoline	8,698	155	713	65	828	10,459
Finished Leaded Motor Gasoline	230	1	0	5	36	272
Finished Unleaded Motor Gasoline	8,468	154	713	60	792	10,187
Finished Aviation Gasoline	0	0	0	0	2	2
Naphtha-Type Jet Fuel	0	89	0	0	0	89
Kerosene-Type Jet Fuel	1,944	56	190	0	306	2,496
Bonded Aircraft Fuel	1,213	56	64	0	204	1,537
Other	731	0	126	0	102	959
Kerosene	229	0	0	0	0	229
Distillate Fuel Oil	5,916	164	0	104	70	6,254
Bonded Ships Bunkers	0	0	0	0	0	0
Other	5,916	164	0	104	70	6,254
Residual Fuel Oil	12,043	79	1,521	0	294	13,937
Bonded Ships Bunkers	0	0	0	0	0	0
Other	12,043	79	1,521	0	294	13,937
Naphtha < 400 Deg. for Petro. Feed. Use	328	9	1,894	0	37	2,268
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	23	78	312	0	6	419
Lubricants	306	8	26	0	18	358
Waxes	27	10	2	0	7	46
Petroleum Coke	0	0	0	0	23	23
Asphalt and Road Oil	697	3	64	1	157	922
Miscellaneous Products	52	3	0	0	0	55
Total Imports	67,262	34,249	99,873	2,239	7,866	211,490

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - April 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Total (Daily Average)
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ^{1 2}	136,000	112,060	309,648	6,658	17,120	581,486	4,806
Natural Gas Liquids	6,842	12,142	4,760	2,040	1,150	26,934	223
Pentanes plus	1,072	146	219	153	0	1,590	13
Liquefied Petroleum Gases	5,770	11,996	4,541	1,887	1,150	25,344	209
Ethane	17	109	61	0	23	211	2
Propane	3,376	7,766	927	1,013	184	13,265	110
Normal Butane	1,450	2,516	2,223	532	576	7,296	60
Isobutane	926	1,606	1,330	342	368	4,572	38
Other Liquids ¹	18,462	259	27,535	0	561	46,817	387
Unfinished Oils ¹	13,441	238	27,535	0	254	41,468	343
Naphthas and Lighter	514	238	5,545	0	254	6,551	54
Kerosene and Light Gas Oils	217	0	696	0	0	913	8
Heavy Gas Oils	10,450	0	4,841	0	0	15,291	126
Residuum	2,260	0	16,453	0	0	18,713	155
Motor Gasoline Blending Components	5,021	21	0	0	307	5,349	44
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	157,588	3,926	14,477	507	5,028	181,526	1,500
Finished Motor Gasoline	37,679	440	1,229	182	1,417	40,947	338
Finished Leaded Motor Gasoline	1,035	1	39	8	110	1,193	10
Finished Unleaded Motor Gasoline	36,644	439	1,190	174	1,307	39,754	329
Finished Aviation Gasoline	0	0	0	0	4	4	(S)
Naphtha-Type Jet Fuel	0	308	0	0	6	314	3
Kerosene-Type Jet Fuel	6,280	1,722	435	0	1,317	9,754	81
Bonded Aircraft Fuel	3,994	1,722	309	0	1,155	7,180	59
Other	2,286	0	126	0	162	2,574	21
Kerosene	1,514	0	716	0	0	2,230	18
Distillate Fuel Oil	33,114	670	2	320	258	34,364	284
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	33,114	670	2	320	258	34,364	284
Residual Fuel Oil	74,012	401	2,919	0	1,322	78,654	650
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	74,012	401	2,919	0	1,322	78,654	650
Naphtha < 400 Deg. for Petro. Feed. Use	779	60	7,265	0	110	8,214	68
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	545	0	214	759	6
Special Naphthas	61	211	1,012	1	30	1,315	11
Lubricants	1,274	42	93	0	55	1,464	12
Waxes	108	54	6	3	19	190	2
Petroleum Coke	20	0	50	0	92	162	1
Asphalt and Road Oil	2,563	5	202	1	184	2,955	24
Miscellaneous Products	184	13	3	0	0	200	2
Total Imports	318,892	128,388	356,420	9,205	23,859	836,763	6,915

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(S) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ April 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
Arab OPEC														
Algeria	3,156	1,318	2,166	0	0	144	0	0	1,793	0	1,673	7,095	10,251	342
Iraq	8,168	0	0	0	0	0	0	0	0	0	0	0	8,168	272
Kuwait	348	0	0	0	0	0	0	0	0	0	0	0	348	12
Neutral Zone ⁴	235	0	0	0	0	0	0	0	0	0	0	0	235	8
Saudi Arabia	23,686	0	3,550	0	219	266	0	220	0	0	0	4,255	27,941	931
United Arab Emirates	1,440	0	0	0	0	0	0	0	0	0	0	0	1,440	48
Subtotal Arab OPEC	37,033	1,318	5,716	0	219	411	0	220	1,793	0	1,673	11,350	48,383	1,613
Other OPEC														
Ecuador	1,472	0	0	0	0	0	0	0	355	0	0	355	1,827	61
Gabon	975	0	0	0	0	0	0	0	0	0	0	0	975	33
Indonesia	4,959	0	0	0	0	0	0	0	10	0	0	10	4,969	166
Nigeria	19,379	0	0	0	0	0	0	0	164	0	0	164	19,543	651
Venezuela	13,657	0	2,196	0	1,307	663	0	1,431	4,416	1	691	10,705	24,362	812
Subtotal Other OPEC	40,442	0	2,196	0	1,307	663	0	1,431	4,945	1	691	11,234	51,676	1,723
Other														
Angola	5,830	0	0	0	0	0	0	0	0	0	0	0	5,830	194
Argentina	0	0	0	0	0	0	0	0	0	4	0	4	4	(s)
Australia	853	0	0	0	0	0	0	0	217	0	0	217	1,070	36
Bahama Islands	0	0	0	0	0	0	0	0	368	0	0	368	368	12
Belgium	0	0	0	0	243	0	0	0	276	0	0	519	519	17
Brazil	0	63	0	0	2,471	0	0	0	600	0	28	3,162	3,162	105
Cameroon	785	0	0	0	0	0	0	0	61	0	0	61	846	28
Canada	21,082	3,257	23	0	1,424	194	7	2,159	800	139	176	8,179	29,261	975
China, People's Republic	2,609	0	0	0	0	0	0	0	0	0	41	41	2,650	88
China, Taiwan	0	7	0	0	0	0	0	0	293	0	18	25	25	1
Colombia	4,359	0	0	0	0	0	0	0	0	0	0	293	4,652	155
Congo	1,034	0	0	0	0	0	0	0	0	0	0	0	1,034	34
Egypt	710	0	0	0	0	0	0	0	0	0	2	2	712	24
France	0	0	0	0	0	0	0	0	0	0	9	9	9	(s)
Germany, DR (E)	0	0	0	0	0	0	0	230	0	0	0	230	230	8
Germany, FD (W)	0	(s)	0	0	0	0	0	0	0	4	34	38	38	1
Ghana	0	0	0	0	0	0	0	0	152	0	0	152	152	5
Greece	0	0	239	0	0	0	0	0	0	0	0	239	239	8
India	0	0	635	0	0	0	0	0	0	0	0	896	896	30
Ireland	0	0	174	0	0	0	0	0	0	261	0	174	174	6
Italy	351	0	336	0	674	204	0	311	274	10	0	1,809	2,160	72
Japan	0	2	0	0	0	0	0	0	0	0	3	5	5	(s)
Korea, Republic	0	1	0	0	0	0	0	0	0	0	37	38	38	1
Mauritania	0	0	0	0	0	0	0	0	245	0	0	245	245	8
Mexico	17,235	1,485	0	0	417	294	0	204	240	0	341	2,981	20,216	674
Netherlands Antilles	0	0	0	0	269	0	0	239	412	0	0	920	920	31
Netherlands	0	3	0	0	0	0	151	0	0	0	6	160	160	5
Norway	1,961	0	0	0	0	0	0	0	0	0	0	0	1,961	65
Oman	0	0	258	0	0	0	0	0	0	0	0	258	258	9
Peru	0	0	0	0	0	0	0	0	754	0	0	754	754	25
Puerto Rico	0	0	138	0	0	0	0	0	0	0	740	878	878	29
Romania	0	0	0	941	542	0	0	0	0	0	0	1,483	1,483	49

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
South Africa	0	0	0	0	0	0	0	0	0	0	7	7	7	(s) 88
Spain	0	2	393	0	1,670	214	0	0	222	0	153	2,654	2,654	8
Sweden	0	0	0	0	0	0	0	0	249	0	0	249	249	17
Syria	301	0	0	0	0	0	0	0	194	0	0	194	194	82
Trinidad and Tobago	2,159	0	0	0	0	0	0	0	298	0	0	298	2,457	7
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	15
Turkey	0	0	394	0	0	0	0	0	0	0	47	441	441	581
United Kingdom	16,296	2	0	0	491	207	0	410	0	0	14	1,124	17,420	193
Virgin Islands	0	0	1,506	495	732	398	71	1,050	1,544	0	0	5,796	5,796	25
Zaire	742	0	0	0	0	0	0	0	0	0	0	0	742	3,714
Subtotal Other	76,307	4,823	4,316	1,436	8,933	1,512	229	4,603	7,199	418	1,656	35,124	111,431	
Total Imports	153,782	6,141	12,228	1,436	10,459	2,585	229	6,254	13,937	419	4,020	57,708	211,490	7,050
PAD District I														
Arab OPEC														
Algeria	0	612	1,106	0	0	144	0	0	512	0	0	2,375	2,375	79
Saudi Arabia	550	0	355	0	219	164	0	220	0	0	0	958	1,508	50
Subtotal Arab OPEC	550	612	1,461	0	219	309	0	220	512	0	0	3,333	3,883	129
Other OPEC														
Ecuador	1,100	0	0	0	0	0	0	0	355	0	0	355	1,455	49
Gabon	577	0	0	0	0	0	0	0	0	0	0	0	577	19
Indonesia	0	0	0	0	0	0	0	0	10	0	0	10	10	(s) 393
Nigeria	11,625	0	0	0	0	0	0	0	164	0	0	164	11,789	406
Venezuela	3,889	0	457	0	828	614	0	1,431	4,416	1	530	8,277	12,166	867
Subtotal Other OPEC	17,191	0	457	0	828	614	0	1,431	4,945	1	530	8,806	25,997	
Other														
Angola	1,509	0	0	0	0	0	0	0	0	0	0	0	1,509	50
Argentina	0	0	0	0	0	0	0	0	0	4	0	4	4	(s) 12
Bahama Islands	0	0	0	0	0	0	0	0	368	0	0	368	368	17
Belgium	0	0	0	0	243	0	0	0	276	0	0	519	519	87
Brazil	0	0	0	0	1,993	0	0	0	500	0	28	2,621	2,621	2
Cameroon	0	0	0	0	0	0	0	0	61	0	0	61	61	172
Canada	1,064	442	5	0	998	105	7	1,821	644	8	55	4,085	5,149	25
China, People's Republic	728	0	0	0	0	0	0	0	0	0	15	15	743	(s) 44
China, Taiwan	0	3	0	0	0	0	0	0	293	0	0	293	1,308	9
Colombia	1,015	0	0	0	0	0	0	0	0	0	0	0	280	24
Congo	280	0	0	0	0	0	0	0	0	0	0	0	710	(s) 8
Egypt	710	0	0	0	0	0	0	0	0	0	9	9	9	1
France	0	0	0	0	0	0	0	230	0	0	0	230	230	(s) 5
Germany, DR (E)	0	0	0	0	0	0	0	0	0	0	1	1	1	42
Germany, FD (W)	0	(s)	0	0	0	0	0	0	152	0	0	152	152	
Ghana	0	0	0	0	0	0	0	0	274	10	0	1,269	1,269	3
Italy	0	0	0	0	674	0	0	311	0	0	3	3	3	(s) 3
Japan	0	0	0	0	0	0	0	0	0	0	0	0	0	

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ April 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Mauritania	0	0	0	0	0	0	0	0	245	0	0	245	245	8
Mexico	1,516	0	0	0	309	97	0	204	0	0	307	917	2,433	81
Netherlands Antilles	0	0	0	0	0	0	0	239	412	0	0	651	651	22
Netherlands	0	0	0	0	0	0	151	0	0	0	6	157	157	5
Peru	0	0	0	0	0	0	0	0	754	0	0	754	754	25
Puerto Rico	0	0	138	0	0	0	0	0	0	0	605	743	743	25
Romania	0	0	0	941	542	0	0	0	0	0	0	1,483	1,483	49
South Africa	0	0	0	0	0	0	0	0	0	0	5	5	5	(s)
Spain	0	2	0	0	1,669	214	0	0	222	0	153	2,260	2,260	75
Sweden	0	0	0	0	0	0	0	0	249	0	0	249	249	8
Syria	301	0	0	0	0	0	0	0	194	0	0	194	495	17
Trinidad and Tobago	272	0	0	0	0	0	0	0	298	0	0	298	570	19
United Kingdom	4,846	0	0	0	491	207	0	410	0	0	0	1,108	5,954	198
Virgin Islands	0	0	1,506	495	732	398	71	1,050	1,544	0	0	5,796	5,796	193
Zaire	648	0	0	0	0	0	0	0	0	0	0	0	648	22
Subtotal Other	12,889	448	1,649	1,436	7,651	1,021	229	4,265	6,586	22	1,187	24,494	37,383	1,246
Total Imports	30,630	1,060	3,567	1,436	8,698	1,944	229	5,916	12,043	23	1,717	36,632	67,262	2,242
PAD District II														
Arab OPEC														
Algeria	294	0	0	0	0	0	0	0	0	0	0	0	294	10
Iraq	1,308	0	0	0	0	0	0	0	0	0	0	0	1,308	44
Kuwait	156	0	0	0	0	0	0	0	0	0	0	0	156	5
Saudi Arabia	5,143	0	0	0	0	0	0	0	0	0	0	0	5,143	171
Subtotal Arab OPEC	6,901	0	0	0	0	0	0	0	0	0	0	0	6,901	230
Other OPEC														
Ecuador	372	0	0	0	0	0	0	0	0	0	0	0	372	12
Nigeria	3,534	0	0	0	0	0	0	0	0	0	0	0	3,534	118
Venezuela	517	0	238	0	0	49	0	0	0	0	0	287	804	27
Subtotal Other OPEC	4,423	0	238	0	0	49	0	0	0	0	0	287	4,710	157
Other														
Canada	16,296	2,321	0	0	155	89	0	164	79	78	70	2,956	19,252	642
Colombia	472	0	0	0	0	0	0	0	0	0	0	0	472	16
Japan	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Mexico	904	0	0	0	0	7	0	0	0	0	0	7	911	30
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
United Kingdom	2,000	2	0	0	0	0	0	0	0	0	0	2	2,002	67
Subtotal Other	19,672	2,323	0	0	155	96	0	164	79	78	71	2,966	22,638	755
Total Imports	30,986	2,323	238	0	155	145	0	164	79	78	71	3,253	34,249	1,142

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1980 (Thousand Barrels)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
Arab OPEC														
Algeria	2,862	706	1,060	0	0	0	0	0	1,281	0	1,673	4,720	7,582	253
Iraq	6,860	0	0	0	0	0	0	0	0	0	0	0	6,860	229
Kuwait	192	0	0	0	0	0	0	0	0	0	0	0	192	6
Neutral Zone ⁴	235	0	0	0	0	0	0	0	0	0	0	0	235	8
Saudi Arabia	17,993	0	3,195	0	0	0	0	0	0	0	0	3,195	21,188	706
United Arab Emirates	1,440	0	0	0	0	0	0	0	0	0	0	0	1,440	48
Subtotal Arab OPEC	29,582	706	4,255	0	0	0	0	0	1,281	0	1,673	7,915	37,497	1,250
Other OPEC														
Gabon	398	0	0	0	0	0	0	0	0	0	0	0	398	13
Indonesia	1,048	0	0	0	0	0	0	0	0	0	0	0	1,048	35
Nigeria	4,220	0	0	0	0	0	0	0	0	0	0	0	4,220	141
Venezuela	9,251	0	1,501	0	479	0	0	0	0	0	20	2,000	11,251	375
Subtotal Other OPEC	14,917	0	1,501	0	479	0	0	0	0	0	20	2,000	16,917	564
Other														
Angola	4,321	0	0	0	0	0	0	0	0	0	0	0	4,321	144
Brazil	0	63	0	0	233	0	0	0	0	0	0	296	296	10
Cameroon	785	0	0	0	0	0	0	0	0	0	0	0	785	26
Canada	1,222	1	18	0	0	0	0	0	0	47	25	91	1,313	44
China, People's Republic	1,461	0	0	0	0	0	0	0	0	0	26	26	1,487	50
Colombia	2,872	0	0	0	0	0	0	0	0	0	0	0	2,872	96
Congo	754	0	0	0	0	0	0	0	0	0	0	0	754	25
Egypt	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Germany, FD (W)	0	0	0	0	0	0	0	0	0	4	33	37	37	1
Greece	0	0	239	0	0	0	0	0	0	0	0	239	239	8
India	0	0	635	0	0	0	0	0	0	261	0	896	896	30
Ireland	0	0	174	0	0	0	0	0	0	0	0	174	174	6
Italy	351	0	336	0	0	0	0	0	0	0	0	336	687	23
Mexico	14,815	1,485	0	0	0	190	0	0	240	0	12	1,927	16,742	558
Norway	1,961	0	0	0	0	0	0	0	0	0	0	0	1,961	65
Oman	0	0	258	0	0	0	0	0	0	0	0	258	258	9
Puerto Rico	0	0	0	0	0	0	0	0	0	0	135	135	135	5
Spain	0	0	393	0	1	0	0	0	0	0	0	394	394	13
Trinidad and Tobago	1,887	0	0	0	0	0	0	0	0	0	0	0	1,887	63
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	7
Turkey	0	0	394	0	0	0	0	0	0	0	47	441	441	15
United Kingdom	9,450	0	0	0	0	0	0	0	0	0	14	14	9,464	315
Zaire	94	0	0	0	0	0	0	0	0	0	0	0	94	3
Subtotal Other	39,973	1,548	2,667	0	234	190	0	0	240	312	294	5,485	45,458	1,515
Total Imports	84,472	2,254	8,423	0	713	190	0	0	1,521	312	1,987	15,401	99,873	3,329
PAD District IV														
Other														
Canada	1,781	288	0	0	65	0	0	0	0	0	1	458	2,239	75
Subtotal Other	1,781	288	0	0	65	0	0	0	0	0	1	458	2,239	75

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ April 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District IV (continued)														
Other (continued)														
Total Imports	1,781	288	0	0	65	0	0	104	0	0	1	458	2,239	75
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	0	102	0	0	0	0	0	102	102	3
Subtotal Arab OPEC	0	0	0	0	0	102	0	0	0	0	0	102	102	3
Other OPEC														
Indonesia	3,911	0	0	0	0	0	0	0	0	0	0	0	3,911	130
Venezuela	0	0	0	0	0	0	0	0	0	0	141	141	141	5
Subtotal Other OPEC	3,911	0	0	0	0	0	0	0	0	0	141	141	4,052	135
Other														
Australia	853	0	0	0	0	0	0	0	217	0	0	217	1,070	36
Brazil	0	0	0	0	245	0	0	0	0	0	0	245	245	8
Canada	719	205	0	0	206	0	0	70	77	6	25	589	1,308	44
China, People's Republic	420	0	0	0	0	0	0	0	0	0	0	0	420	14
China, Taiwan	0	4	0	0	0	0	0	0	0	0	18	22	22	1
Italy	0	0	0	0	0	204	0	0	0	0	0	204	204	7
Japan	0	2	0	0	0	0	0	0	0	0	0	2	2	(s)
Korea, Republic	0	1	0	0	0	0	0	0	0	0	37	38	38	1
Mexico	0	0	0	0	108	0	0	0	0	0	22	130	130	4
Netherlands Antilles	0	0	0	0	269	0	0	0	0	0	0	269	269	9
Netherlands	0	3	0	0	0	0	0	0	0	0	0	3	3	(s)
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Subtotal Other	1,992	215	0	0	828	204	0	70	294	6	103	1,720	3,712	124
Total Imports	5,903	215	0	0	828	306	0	70	294	6	244	1,963	7,866	262

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, January - April 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	15,102	3,548	3,322	0	0	289	0	1,225	8,592	0	6,272	23,248	38,350	317
Iraq	21,160	0	0	0	0	0	0	0	0	0	0	0	21,160	175
Kuwait	10,291	0	1,526	0	0	0	0	0	0	0	0	1,526	11,817	98
Neutral Zone ⁴	3,274	0	0	0	0	0	0	0	0	0	0	0	3,274	27
Saudi Arabia	104,011	297	10,084	0	1,997	722	0	2,102	0	0	660	15,862	119,873	991
United Arab Emirates	4,649	0	0	0	0	592	0	342	0	0	213	1,147	5,796	48
Subtotal Arab OPEC	158,487	3,845	14,932	0	1,997	1,603	0	3,669	8,592	0	7,145	41,783	200,270	1,655
Other OPEC														
Ecuador	4,199	0	0	0	0	0	0	0	2,205	0	0	2,205	6,404	53
Gabon	2,756	0	0	0	0	0	0	0	0	0	0	0	2,756	23
Indonesia	16,291	0	1,176	0	0	0	0	0	968	0	214	2,358	18,649	154
Iran	5,25	0	0	0	0	0	0	0	0	0	0	0	5,25	5 (s)
Nigeria	61,563	0	318	0	0	0	0	256	1,276	0	0	1,850	63,413	524
Venezuela	52,791	1,337	7,669	159	2,617	3,186	0	8,115	18,140	2	2,236	43,461	96,252	795
Subtotal Other OPEC	137,625	1,337	9,163	159	2,617	3,186	0	8,371	22,589	2	2,450	49,874	187,499	1,550
Other														
Angola	20,332	0	0	0	0	0	0	0	1,085	0	0	1,085	21,417	177
Argentina	0	0	0	0	223	0	0	0	1,006	158	17	1,404	1,404	12
Australia	6,543	0	0	0	0	0	0	0	399	0	80	479	7,022	58
Bahama Islands	0	0	0	0	0	0	0	8	4,967	0	0	4,975	4,975	41
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	2
Belgium	0	0	903	0	1,368	0	0	0	893	0	5	3,169	3,169	26
Benin	337	0	0	0	0	0	0	0	0	0	0	0	337	3
Brazil	0	275	15	0	6,684	0	219	1,065	2,536	1	43	10,838	10,838	90
Brunei	150	0	0	0	0	0	0	0	0	0	0	0	150	1
Cameroon	4,509	0	0	0	0	0	0	0	669	0	0	669	5,178	43
Canada	81,033	16,780	741	21	5,342	1,524	135	7,879	3,505	427	920	37,275	118,308	978
China, People's Republic	10,563	0	0	307	0	0	0	0	0	0	101	408	10,971	91
China, Taiwan	0	21	0	0	0	0	0	0	0	0	27	48	48	(s)
Colombia	13,582	0	0	0	0	0	0	0	4,109	0	0	4,109	17,691	146
Congo	2,573	0	0	0	0	0	0	0	271	0	0	271	2,844	24
Egypt	2,859	0	0	0	0	0	0	0	0	0	7	7	2,866	24
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	2
France	0	34	0	0	1,006	0	0	0	171	0	75	1,286	1,286	11
Germany, DR (E)	0	0	0	0	0	0	0	656	0	0	0	656	656	5
Germany, FR (W)	0	9	0	0	310	0	0	0	298	4	41	364	364	3
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	298	2
Greece	0	0	0	0	508	0	0	134	870	0	0	1,751	1,751	14
Guatemala	200	0	239	0	0	0	0	0	0	0	0	0	200	2
Hungary	0	0	0	0	0	0	0	0	0	0	3	3	3	(s)
India	0	0	1,758	0	0	0	0	0	0	682	0	2,440	2,440	20
Ireland	0	0	174	0	0	0	0	0	0	0	0	174	174	1
Israel	0	0	0	0	0	0	0	0	0	15	0	15	15	(s)
Italy	1,243	1	2,459	0	4,358	204	0	755	873	14	10	8,674	9,917	82
Japan	0	19	0	0	0	0	0	21	0	4	165	209	209	2
Korea, Republic	0	4	0	0	0	0	0	0	0	0	0	74	78	1
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	2
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	4

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - April 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Mauritania	0	0	0	0	0	0	0	0	245	0	0	245	245	2
Mexico	79,326	3,007	0	0	417	1,317	0	943	1,303	0	8,052	8,052	87,378	722
Netherlands Antilles	0	0	0	0	499	0	0	239	2,951	0	0	3,689	3,689	30
Netherlands	0	6	58	0	3,780	0	151	1,182	892	8	140	6,217	6,217	51
Norway	4,678	0	259	0	0	0	0	0	61	0	108	428	5,106	42
Oman	0	0	429	0	0	0	0	0	0	0	0	429	429	4
Peru	0	0	0	0	0	0	0	0	4,269	0	0	4,269	4,269	35
Puerto Rico	0	0	658	0	0	0	0	0	0	0	2,241	2,899	2,899	24
Romania	0	0	0	3,683	2,071	0	0	444	0	0	0	6,198	6,198	51
Singapore	0	0	0	0	0	25	0	0	1,028	0	0	1,053	1,053	9
South Africa	0	0	0	0	0	0	0	0	0	0	34	34	34	(s)
Spain	0	2	1,232	0	3,270	608	0	372	621	0	530	6,263	6,263	52
Sweden	0	1	0	0	0	0	0	0	579	0	110	1,062	1,062	9
Switzerland	0	(s)	0	0	0	0	0	0	0	0	2	2	2	(s)
Syria	301	0	0	0	0	0	0	0	194	0	0	194	495	4
Trinidad and Tobago	8,681	0	0	0	138	230	115	201	1,783	0	0	2,467	11,148	92
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	2
Turkey	0	0	790	0	0	0	0	0	0	0	47	837	837	7
United Kingdom	43,938	4	801	0	3,079	207	0	1,008	1,327	0	98	6,525	50,463	417
U.S.S.R.	0	0	456	0	0	0	0	2,855	27	0	0	3,338	3,338	28
Virgin Islands	0	0	5,906	1,179	2,988	1,164	1,610	4,352	10,541	0	0	27,740	27,740	229
Zaire	4,102	0	0	0	0	0	0	0	0	0	0	0	4,102	34
Subtotal Other	285,374	20,162	17,373	5,190	36,333	5,279	2,230	22,324	47,473	1,313	5,943	163,621	448,995	3,711
Total Imports	581,486	25,344	41,468	5,349	40,947	10,068	2,230	34,364	78,654	1,315	15,538	255,277	836,763	6,915
PAD District I														
Arab OPEC														
Algeria	0	2,810	2,260	0	0	289	0	1,225	7,136	0	0	13,720	13,720	113
Neutral Zone ⁴	650	0	0	0	0	0	0	0	0	0	0	0	650	5
Saudi Arabia	12,255	297	355	0	1,741	456	0	2,102	0	0	0	4,951	17,206	142
United Arab Emirates	769	0	0	0	0	0	0	342	0	0	0	342	1,111	9
Subtotal Arab OPEC	13,674	3,108	2,615	0	1,741	744	0	3,669	7,136	0	0	19,013	32,687	270
Other OPEC														
Ecuador	3,039	0	0	0	0	0	0	0	2,205	0	0	2,205	5,244	43
Gabon	1,995	0	0	0	0	0	0	0	0	0	0	0	1,995	16
Indonesia	0	0	0	0	0	0	0	0	968	0	0	968	968	8
Nigeria	36,204	0	0	0	0	0	0	256	1,276	0	0	1,532	37,736	312
Venezuela	11,793	816	1,945	159	1,622	2,208	0	8,113	18,140	2	1,962	34,967	46,760	386
Subtotal Other OPEC	53,031	816	1,945	159	1,622	2,208	0	8,369	22,589	2	1,962	39,672	92,703	766
Other														
Angola	11,851	0	0	0	0	0	0	0	1,085	0	0	1,085	12,936	107
Argentina	0	0	0	0	223	0	0	0	1,006	15	0	1,244	1,244	10
Australia	551	0	0	0	0	0	0	0	182	0	80	262	813	7
Bahama Islands	0	0	0	0	0	0	0	8	4,740	0	0	4,748	4,748	39

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - April 1988 (continued)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphtha	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Belgium	0	0	329	0	1,368	0	0	0	893	0	0	2,590	2,590	21
Benin	337	0	0	0	6,206	0	0	0	2,536	0	0	0	337	3
Brazil	0	0	15	0	0	0	219	1,065	0	0	43	10,084	10,084	83
Cameroon	3,006	0	0	0	0	0	0	0	669	0	0	669	3,675	30
Canada	6,040	1,816	352	0	4,181	894	135	6,652	2,676	26	260	16,992	23,032	190
China, People's Republic	5,020	0	0	0	0	0	0	0	0	0	31	31	5,051	42
China, Taiwan	0	12	0	0	0	0	0	0	0	0	0	12	12	(s)
Colombia	5,059	0	0	0	0	0	0	0	4,109	0	0	4,109	9,168	76
Congo	280	0	0	0	0	0	0	0	271	0	0	271	551	5
Egypt	2,859	0	0	0	292	0	0	0	0	0	3	3	2,862	24
Finland	0	(s)	0	0	1,006	0	0	0	171	0	24	1,201	292	2
France	0	0	0	0	310	0	0	656	0	0	0	656	1,201	10
Germany, DR (E)	0	0	0	0	0	0	0	0	0	0	0	0	656	5
Germany, FD (W)	0	9	0	0	0	0	0	0	298	0	8	327	327	3
Ghana	0	0	0	0	508	0	0	134	870	0	0	298	298	2
Greece	0	0	0	0	0	0	0	0	0	0	0	1,512	1,512	12
Hungary	0	0	0	0	0	0	0	755	873	14	10	7,199	8,091	(s)
Italy	892	1	1,188	0	4,358	0	0	0	0	4	41	46	46	67
Japan	0	1	0	0	0	0	0	0	0	0	0	2	2	(s)
Korea, Republic	0	2	0	0	0	0	0	210	0	0	0	210	210	2
Liberia	0	0	0	0	0	0	0	0	245	0	0	245	245	2
Mauritania	0	0	0	0	0	0	0	943	1,033	0	964	3,560	9,669	80
Mexico	6,109	0	0	0	309	311	0	239	2,951	0	0	3,420	3,420	28
Netherlands Antilles	0	0	0	0	230	0	0	1,182	892	0	20	6,027	6,027	50
Netherlands	0	2	0	0	3,780	0	151	0	61	0	108	169	2,385	20
Norway	2,216	0	0	0	0	0	0	0	4,269	0	0	4,269	4,269	35
Peru	0	0	0	0	0	0	0	0	0	0	1,863	2,521	2,521	21
Puerto Rico	0	0	658	0	2,071	0	0	444	0	0	16	16	6,198	51
Romania	0	0	0	3,683	0	0	0	0	621	0	530	5,373	5,373	(s)
South Africa	0	0	429	0	3,269	522	0	372	579	0	0	952	952	8
Spain	0	2	0	0	0	0	0	0	0	0	2	2	2	(s)
Sweden	0	1	0	0	0	0	0	0	194	0	0	194	495	4
Switzerland	0	(s)	0	0	0	0	0	0	1,783	0	0	2,467	4,101	34
Syria	301	0	0	0	138	230	115	201	712	0	0	5,043	25,816	213
Trinidad and Tobago	1,634	0	0	0	3,079	207	0	1,008	27	0	32	2,882	2,882	24
United Kingdom	20,773	(s)	4	0	0	0	0	2,855	10,541	0	0	27,024	27,024	223
U.S.R.	0	0	0	1,179	2,988	1,164	894	4,352	0	0	0	0	2,367	20
Virgin Islands	0	0	5,906	0	0	0	0	0	0	0	0	0	193,502	1,599
Zaire	2,367	0	0	4,862	34,316	3,328	1,514	21,076	44,287	59	4,038	124,207	193,502	1,599
Subtotal Other	69,295	1,846	8,881	0	0	0	0	0	0	0	0	0	0	0
Total Imports	136,000	5,770	13,441	5,021	37,679	6,280	1,514	33,114	74,012	61	6,000	182,892	318,892	2,635

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - April 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District II														
Arab OPEC														
Algeria	1,973	0	0	0	0	0	0	0	0	0	0	0	1,973	16
Iraq	4,515	0	0	0	0	0	0	0	0	0	0	0	4,515	37
Kuwait	656	0	0	0	0	0	0	0	0	0	0	0	656	5
Saudi Arabia	15,589	0	0	0	0	0	0	0	0	0	0	0	15,589	129
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	6
Subtotal Arab OPEC	22,910	0	0	0	0	592	0	0	0	0	0	592	23,502	194
Other OPEC														
Ecuador	779	0	0	0	0	0	0	0	0	0	0	0	779	6
Nigeria	14,213	0	0	0	0	0	0	0	0	0	0	0	14,213	117
Venezuela	726	0	238	0	0	573	0	0	0	0	0	811	1,537	13
Subtotal Other OPEC	15,718	0	238	0	0	573	0	0	0	0	0	811	16,529	137
Other														
Canada	63,456	11,958	0	21	440	308	0	670	401	211	304	14,313	77,769	643
Colombia	472	0	0	0	0	0	0	0	0	0	0	0	472	4
France	0	34	0	0	0	0	0	0	0	0	0	34	34	(s)
Japan	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Mexico	6,000	0	0	0	0	557	0	0	0	0	0	557	6,557	54
South Africa	0	0	0	0	0	0	0	0	0	0	16	16	16	(s)
Trinidad and Tobago	176	0	0	0	0	0	0	0	0	0	0	0	176	1
United Kingdom	3,328	4	0	0	0	0	0	0	0	0	0	0	3,332	28
Subtotal Other	73,432	11,996	0	21	440	865	0	670	401	211	320	14,924	88,356	730
Total Imports	112,060	11,996	238	21	440	2,030	0	670	401	211	320	16,328	128,388	1,061
PAD District III														
Arab OPEC														
Algeria	13,129	738	1,062	0	0	0	0	0	1,456	0	6,272	9,528	22,657	187
Iraq	16,645	0	0	0	0	0	0	0	0	0	0	0	16,645	138
Kuwait	9,635	0	1,526	0	0	0	0	0	0	0	0	1,526	11,161	92
Neutral Zone ⁴	2,624	0	0	0	0	0	0	0	0	0	0	0	2,624	22
Saudi Arabia	76,167	0	9,729	0	0	0	0	0	0	0	660	10,389	86,556	715
United Arab Emirates	3,703	0	0	0	0	0	0	0	0	0	213	213	3,916	32
Subtotal Arab OPEC	121,903	738	12,317	0	0	0	0	0	1,456	0	7,145	21,656	143,559	1,186
Other OPEC														
Ecuador	381	0	0	0	0	0	0	0	0	0	0	0	381	3
Gabon	761	0	0	0	0	0	0	0	0	0	0	0	761	6
Indonesia	4,698	0	922	0	0	0	0	0	0	0	0	922	5,620	46
Iran	5 25	0	0	0	0	0	0	0	0	0	0	0	5 25	5 (s)
Nigeria	11,146	0	318	0	0	0	0	0	0	0	0	318	11,464	95
Venezuela	40,272	520	5,486	0	995	0	0	2	0	0	133	7,136	47,408	392
Subtotal Other OPEC	57,283	520	6,726	0	995	0	0	2	0	0	133	8,376	65,659	543

See footnotes at end of table.

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III (continued)														
Other														
Angola	8,481	0	0	0	0	0	0	0	0	0	0	0	8,481	70
Argentina	0	0	0	0	0	0	0	0	0	143	17	160	160	1
Australia	2,971	0	0	0	0	0	0	0	0	0	0	0	2,971	25
Bahama Islands	0	0	0	0	0	0	0	0	227	0	0	227	227	2
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	2
Belgium	0	0	574	0	0	0	0	0	0	0	5	579	579	5
Brazil	0	275	0	0	233	0	0	0	0	1	0	509	509	4
Cameroon	1,503	0	0	0	0	0	0	0	0	0	0	0	1,503	12
Canada	2,943	1	389	0	0	0	0	0	351	159	102	1,002	3,945	33
China, People's Republic	5,123	0	0	0	0	0	0	0	0	0	70	70	5,193	43
Colombia	8,051	0	0	0	0	0	0	0	0	0	0	0	8,051	67
Congo	2,293	0	0	0	0	0	0	0	0	0	0	0	2,293	19
Egypt	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
France	0	0	0	0	0	0	0	0	0	0	51	51	51	(s)
Germany, FD (W)	0	0	0	0	0	0	0	0	0	4	33	37	37	(s)
Greece	0	0	239	0	0	0	0	0	0	0	0	239	239	2
Guatemala	200	0	0	0	0	0	0	0	0	0	0	0	200	2
India	0	0	1,758	0	0	0	0	0	0	682	0	2,440	2,440	20
Ireland	0	0	174	0	0	0	0	0	0	0	0	174	174	1
Israel	0	0	0	0	0	0	0	0	0	15	0	15	15	(s)
Italy	351	0	1,271	0	0	0	0	0	0	0	0	1,271	1,622	13
Japan	0	0	0	0	0	0	0	0	0	0	60	60	60	(s)
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	4
Mexico	67,217	3,007	0	0	0	349	0	0	270	0	42	3,668	70,885	586
Netherlands	0	0	58	0	0	0	0	0	0	8	120	186	186	2
Norway	2,462	0	259	0	0	0	0	0	0	0	0	259	2,721	22
Oman	0	0	429	0	0	0	0	0	0	0	0	429	429	4
Puerto Rico	0	0	0	0	0	0	0	0	0	0	378	378	378	3
Spain	0	0	803	0	1	86	0	0	0	0	0	890	890	7
Sweden	0	0	0	0	0	0	0	0	0	0	110	110	110	1
Trinidad and Tobago	6,871	0	0	0	0	0	0	0	0	0	0	0	6,871	57
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	2
Turkey	0	0	790	0	0	0	0	0	0	0	47	837	837	7
United Kingdom	19,837	0	797	0	0	0	0	0	615	0	66	1,478	21,315	176
U.S.R.	0	0	456	0	0	0	0	0	0	0	0	456	456	4
Virgin Islands	0	0	0	0	0	0	716	0	0	0	0	716	716	6
Zaire	1,735	0	0	0	0	0	0	0	0	0	0	0	1,735	14
Subtotal Other	130,462	3,283	8,492	0	234	435	716	0	1,463	1,012	1,105	16,740	147,202	1,217
Total imports	309,648	4,541	27,535	0	1,229	435	716	2	2,919	1,012	8,383	46,772	356,420	2,946
PAD District IV														
Other														
Canada	6,658	1,887	0	0	182	0	0	0	0	1	157	2,547	9,205	76
Subtotal Other	6,658	1,887	0	0	182	0	0	0	0	1	157	2,547	9,205	76

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - April 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District IV (continued)														
Other (continued)														
Total Imports	6,658	1,887	0	0	182	0	0	320	0	1	157	2,547	9,205	76
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	256	266	0	0	0	0	0	522	522	4
Subtotal Arab OPEC	0	0	0	0	256	266	0	0	0	0	0	522	522	4
Other OPEC														
Indonesia	11,593	0	254	0	0	0	0	0	0	0	214	468	12,061	100
Venezuela	0	0	0	0	0	405	0	0	0	0	141	546	546	5
Subtotal Other OPEC	11,593	0	254	0	0	405	0	0	0	0	355	1,014	12,607	104
Other														
Australia	3,021	0	0	0	0	0	0	0	217	0	0	217	3,238	27
Brazil	0	0	0	0	245	0	0	0	0	0	0	245	245	2
Brunei	150	0	0	0	0	0	0	0	0	0	0	0	150	1
Canada	1,936	1,118	0	0	539	322	0	237	77	30	97	2,421	4,357	36
China, People's Republic	420	0	0	307	0	0	0	0	0	0	0	307	727	6
China, Taiwan	0	8	0	0	0	0	0	0	0	0	27	35	35	(s)
Italy	0	0	0	0	0	204	0	0	0	0	0	204	204	2
Japan	0	18	0	0	0	0	0	21	0	0	64	103	103	1
Korea, Republic	0	2	0	0	0	0	0	0	0	0	74	76	76	1
Mexico	0	0	0	0	108	100	0	0	0	0	59	267	267	2
Netherlands Antilles	0	0	0	0	269	0	0	0	0	0	0	269	269	2
Netherlands	0	3	0	0	0	0	0	0	0	0	0	3	3	(s)
Singapore	0	0	0	0	0	25	0	0	1,028	0	0	1,053	1,053	9
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Subtotal Other	5,527	1,150	0	307	1,161	652	0	258	1,322	30	323	5,203	10,730	89
Total Imports	17,120	1,150	254	307	1,417	1,323	0	258	1,322	30	678	6,739	23,859	197

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, April 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ¹	0	342	0	0	3,166	3,508	117
Natural Gas Liquids	51	521	556	35	193	1,357	45
Pentanes Plus	0	59	0	0	0	59	2
Liquefied Petroleum Gases	51	462	556	35	193	1,298	43
Ethane	(s)	118	0	0	(s)	118	4
Propane	32	162	515	14	81	804	27
Normal Butane	19	124	40	21	113	317	11
Isobutane	0	59	0	0	0	59	2
Finished Motor Gasoline	14	74	434	0	30	553	18
Naphtha-Type Jet Fuel	2	0	(s)	0	0	3	(s)
Kerosene-Type Jet Fuel	21	0	324	0	47	392	13
Kerosene	8	1	1	0	1	11	(s)
Distillate Fuel Oil	11	6	357	0	894	1,268	42
Residual Fuel Oil	2	0	1,654	0	3,439	5,095	170
Naphtha < 400 Deg. for Petro. Feed. Use	46	32	43	1	7	128	4
Other Oils > 400 Deg. for Petro. Feed. Use	3	44	328	0	204	578	19
Special Naphthas	9	5	74	0	3	91	3
Lubricants	333	53	399	5	184	974	32
Waxes	5	2	29	(s)	8	43	1
Petroleum Coke	118	99	3,848	0	2,231	6,296	210
Asphalt	1	(s)	(s)	1	2	4	(s)
Miscellaneous Products	26	3	19	(s)	5	54	2
Total Product Exports	652	840	8,066	41	7,248	16,847	562
Total Exports	652	1,181	8,066	41	10,414	20,354	678

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January - April 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	
						Total
Crude Oil (including lease condensate) ¹	0	1,909	0	0	19,239	21,148
Natural Gas Liquids	138	2,025	2,361	172	685	5,380
Pentanes Plus	0	241	0	0	0	241
Liquefied Petroleum Gases	138	1,784	2,361	172	685	5,140
Ethane	1	482	1	0	(s)	484
Propane	79	504	2,242	69	290	3,184
Normal Butane	58	557	118	103	394	1,231
Isobutane	0	241	0	0	0	241
Finished Motor Gasoline	77	151	1,021	1	642	1,892
Naphtha-Type Jet Fuel	5	0	12	(s)	0	17
Kerosene-Type Jet Fuel	217	2	4,112	0	1,184	5,515
Kerosene	37	123	6	1	2	168
Distillate Fuel Oil	62	75	4,168	0	4,909	9,214
Residual Fuel Oil	10	0	6,439	0	16,307	22,756
Naphtha < 400 Deg. for Petro. Feed. Use	192	85	174	3	46	500
Other Oils > 400 Deg. for Petro. Feed. Use	7	101	1,275	0	814	2,198
Special Naphthas	45	35	288	1	14	384
Lubricants	861	176	1,246	15	577	2,875
Waxes	19	7	94	(s)	35	155
Petroleum Coke	957	213	15,979	(s)	9,513	26,663
Asphalt	4	2	6	3	5	20
Miscellaneous Products	119	11	90	(s)	21	241
Total Product Exports	2,751	3,006	37,271	195	34,754	77,977
Total Exports	2,751	4,914	37,271	195	53,993	99,125

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, April 1988

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	19	0	0	0	0	0	3	(s)	0	0	1	22	1
Australia	0	(s)	0	0	(s)	70	0	5	(s)	159	(s)	1	236	8
Bahamas	0	16	64	13	(s)	100	0	2	0	0	0	(s)	196	7
Bahrain	0	0	0	0	0	0	(s)	0	0	0	0	1	1	(s)
Belgium & Luxembourg	0	0	0	0	0	0	20	45	(s)	987	0	1	1,055	35
Brazil	0	0	4	0	0	0	(s)	2	0	0	0	(s)	6	(s)
Cameroon	0	0	0	0	0	0	0	0	0	488	1	155	2,330	78
Canada	342	508	118	70	177	303	11	153	5	0	0	(s)	3	(s)
Chile	0	1	0	0	0	0	1	52	1	2	(s)	5	852	28
China, Taiwan	314	1	0	0	0	478	(s)	3	0	0	0	4	9	(s)
Colombia	0	0	0	0	0	0	3	7	(s)	0	(s)	3	13	(s)
Costa Rica	0	(s)	0	0	0	0	3	(s)	(s)	163	0	3	166	6
Denmark	0	(s)	0	0	0	0	(s)	2	0	0	0	1	30	1
Dominican Republic	0	27	0	0	0	0	0	2	(s)	0	0	(s)	2	(s)
Ecuador	0	0	0	0	0	0	0	2	0	0	0	(s)	1	(s)
Egypt	0	0	0	0	0	0	0	1	0	0	(s)	(s)	1	(s)
El Salvador	0	0	8	0	0	0	0	7	0	0	0	(s)	17	1
Finland	0	0	0	0	0	0	1	2	0	0	0	0	2	(s)
France	0	0	0	0	0	107	1	3	17	232	0	86	446	15
French Pacific Isl	0	(s)	0	0	0	325	0	(s)	0	0	0	0	325	11
Ghana	0	0	0	0	0	0	0	(s)	0	45	0	(s)	45	1
Greece	0	1	0	0	0	0	0	1	0	130	0	0	132	4
Guatemala	0	71	207	21	301	0	2	7	0	(s)	0	(s)	609	20
Honduras	0	(s)	0	0	0	0	1	2	(s)	0	0	3	6	(s)
Hong Kong	0	1	0	0	0	0	0	1	(s)	0	(s)	(s)	2	(s)
India	0	0	0	0	0	0	0	4	0	0	0	1	5	(s)
Indonesia	0	0	0	0	0	0	2	3	(s)	0	0	0	6	(s)
Israel	0	0	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Italy	0	0	0	0	0	0	2	8	(s)	1,288	(s)	70	1,367	46
Jamaica	0	29	150	290	655	49	(s)	4	0	3	0	1	90	3
Japan	0	2	0	0	0	0	24	40	3	1,552	0	85	2,849	95
Jordan	0	0	0	0	0	0	0	1	1	0	0	0	1	(s)
Korea, Republic	0	20	1	0	0	920	4	161	0	(s)	0	38	1,146	38
Kuwait	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	4	0	0	0	1	5	(s)
Mexico	0	543	(s)	(s)	0	1,078	2	81	9	75	0	9	1,798	60
Netherlands	0	(s)	0	0	0	0	0	4	1	133	(s)	3	140	5
Netherlands Antilles	0	0	0	0	0	873	0	2	0	0	0	(s)	875	29
New Zealand	0	0	0	0	0	0	0	(s)	(s)	0	0	2	2	(s)
Nigeria	0	0	0	0	0	0	0	57	0	0	0	0	58	2
Norway	0	1	0	0	0	0	0	(s)	0	133	0	0	135	4
Panama	0	0	0	0	0	114	(s)	32	0	0	0	0	146	5
Peru	0	(s)	0	0	0	0	(s)	7	(s)	0	0	(s)	1	(s)
Philippines	0	0	0	0	0	0	2	82	1	0	0	1	10	(s)
Puerto Rico	0	6	1	0	0	81	3	1	(s)	11	0	7	191	6
Rep. of South Africa	0	0	0	0	0	0	0	1	(s)	33	0	(s)	34	1
Saudi Arabia	0	12	0	0	0	0	(s)	11	0	0	(s)	4	27	1
Singapore	0	0	0	0	0	415	3	7	(s)	(s)	0	4	429	14

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, April 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Spain	0	0	0	0	0	0	0	3	(s)	507	0	181	691	23
Surinam	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	1	(s)
Sweden	0	0	0	0	0	0	0	2	0	0	(s)	(s)	2	(s)
Switzerland	0	0	0	0	0	0	0	(s)	(s)	0	0	1	2	(s)
Thailand	0	0	0	0	0	0	2	5	(s)	0	(s)	98	105	4
Trinidad and Tobago	0	1	0	0	0	0	(s)	0	0	0	0	1	1	(s)
Turkey	0	0	0	0	0	0	0	10	0	0	0	0	10	(s)
United Arab Emirates	0	0	0	0	0	0	0	3	0	58	0	5	66	2
United Kingdom	0	(s)	0	0	0	0	(s)	8	(s)	2	1	15	27	1
U.S.R.	0	0	0	0	0	25	0	98	0	0	0	20	143	5
Uruguay	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela	0	4	0	0	0	0	(s)	3	(s)	83	0	2	93	3
Virgin Islands	2,852	0	0	0	0	0	0	(s)	0	0	0	0	2,852	95
West Germany	0	2	0	0	0	0	3	10	2	24	(s)	12	53	2
Yugoslavia	0	0	0	0	0	0	0	(s)	0	57	0	0	57	2
Other	0	32	0	0	79	158	1	20	(s)	133	(s)	4	426	14
Total	3,508	1,298	553	395	1,268	5,095	91	974	43	6,296	4	830	20,354	678

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - April 1983

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	19	0	0	0	0	4	7	1	3	0	116	149	1
Australia	0	4	0	0	0	1,225	19	32	1	908	(s)	22	2,212	18
Bahamas	0	45	207	106	569	2,012	0	13	(s)	0	(s)	(s)	2,953	24
Bahrain	0	(s)	0	0	(s)	0	(s)	(s)	0	125	0	1	127	1
Belgium & Luxembourg	0	19	0	0	0	0	56	108	1	2,716	(s)	3	2,903	24
Brazil	0	50	40	0	0	0	25	14	(s)	86	0	1	216	2
Cameroon	0	0	0	0	0	0	0	(s)	0	38	0	0	38	(s)
Canada	1,909	2,012	429	1,384	1,418	1,023	58	453	17	1,508	7	662	10,881	90
Chile	0	2	0	0	0	0	4	60	1	1	0	3	70	1
China, Taiwan	617	5	1	0	581	3,101	3	165	5	166	(s)	28	4,669	39
Colombia	0	(s)	0	0	0	0	1	22	(s)	(s)	0	11	38	(s)
Costa Rica	0	(s)	10	0	0	0	7	26	(s)	(s)	(s)	6	50	(s)
Denmark	0	1	0	0	0	0	(s)	1	(s)	419	(s)	4	426	4
Dominican Republic	0	27	0	0	56	0	(s)	13	(s)	0	0	3	100	1
Ecuador	0	0	0	10	(s)	0	2	33	1	0	0	3	50	(s)
Egypt	0	0	0	0	0	0	0	12	0	0	(s)	(s)	3	(s)
El Salvador	0	0	8	0	0	0	2	0	0	(s)	0	(s)	23	(s)
Finland	0	0	0	0	0	0	0	9	0	0	0	(s)	9	(s)
France	0	3	0	0	0	107	1	13	20	845	0	354	1,343	11
French Pacific Isl	0	1	0	0	392	355	0	1	0	0	0	0	749	6
Ghana	0	0	0	0	0	0	0	1	0	129	0	(s)	130	1
Greece	0	4	0	0	0	0	0	3	(s)	475	0	(s)	482	4
Guatemala	0	314	321	29	683	0	6	33	(s)	(s)	(s)	1	1,387	11
Guinea	0	0	0	0	0	0	0	3	0	0	0	0	3	(s)
Honduras	0	28	0	0	70	0	3	11	1	0	0	3	116	1
Hong Kong	0	3	0	0	0	0	(s)	8	1	0	(s)	1	12	(s)
India	0	0	0	0	0	0	2	18	(s)	(s)	0	26	46	(s)
Indonesia	0	0	0	0	0	0	4	13	(s)	97	(s)	(s)	115	1
Israel	0	1	0	208	0	0	25	21	(s)	134	0	5	351	3
Italy	0	111	3	0	0	0	0	5	2	4,388	(s)	381	4,931	41
Ivory Coast	0	52	0	0	133	632	1	15	1	(s)	0	4	836	7
Jamaica	0	3	796	3,228	3,947	2,470	74	162	12	6,114	(s)	196	17,002	141
Japan	0	1	0	0	0	0	0	4	0	0	0	0	5	(s)
Jordan	0	29	2	0	1	2,021	9	214	1	374	(s)	394	3,046	25
Korea, Republic	0	1	0	0	0	0	(s)	2	0	0	0	1	3	(s)
Kuwait	0	0	0	0	0	0	0	2	0	0	0	(s)	3	(s)
Lebanon	0	0	0	0	0	0	0	(s)	0	0	0	0	3	(s)
Liberia	0	0	0	0	0	0	0	6	0	0	(s)	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	0	2	0	(s)	3	10	(s)
Mexico	0	2,093	2	17	1	4,340	10	357	54	272	(s)	44	7,190	59
Netherlands	0	1	9	0	0	0	15	11	2	2,312	(s)	166	2,517	21
Netherlands Antilles	0	(s)	0	0	(s)	2,071	0	8	0	0	0	2	2,082	17
New Zealand	0	0	0	0	0	0	1	6	(s)	127	(s)	4	137	1
Nigeria	0	0	0	0	0	0	0	62	1	0	(s)	0	63	1
Norway	0	4	0	0	0	0	0	4	(s)	354	(s)	0	362	3
Pacific Trust Terr.	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Panama	0	0	34	0	352	414	8	149	(s)	0	(s)	6	963	8
Peru	0	20	25	534	827	0	1	7	(s)	(s)	(s)	3	1,417	12
Philippines	0	(s)	0	0	0	0	6	27	(s)	0	0	5	38	(s)
Puerto Rico	2,177	17	1	0	0	84	4	154	6	11	(s)	35	2,488	21
Rep. of South Africa	0	1	0	0	0	0	(s)	3	(s)	182	(s)	6	193	2
Saudi Arabia	0	53	0	0	0	0	(s)	32	(s)	2	(s)	13	99	1

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - April 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Singapore	0	1	0	0	0	1,257	7	15	(s)	1	(s)	124	1,405	12
Spain	0	(s)	0	0	0	792	0	20	15	2,793	0	294	3,905	32
Surinam	0	35	0	0	0	0	(s)	6	0	0	0	(s)	41	(s)
Sweden	0	0	0	0	0	0	1	5	(s)	0	(s)	1	8	(s)
Switzerland	0	(s)	0	0	0	0	(s)	2	(s)	0	0	1	4	(s)
Thailand	0	(s)	0	0	0	0	5	14	1	0	(s)	192	211	2
Trinidad and Tobago	0	4	0	0	0	0	(s)	1	(s)	0	0	2	7	(s)
Turkey	0	(s)	0	0	0	0	0	26	0	332	0	2	359	3
United Arab Emirates	0	(s)	0	0	0	0	(s)	22	0	86	(s)	6	114	1
United Kingdom	0	2	0	0	1	204	1	15	2	513	2	55	795	7
U.S.S.R.	0	0	0	0	0	25	0	208	0	140	0	36	409	3
Uruguay	0	(s)	0	0	0	0	0	2	(s)	0	0	1	3	(s)
Venezuela	0	8	0	2	(s)	0	2	16	1	441	0	14	485	4
Virgin Islands	16,445	3	0	0	0	0	0	15	0	0	0	4	16,467	136
West Germany	0	11	(s)	0	0	0	14	119	5	169	6	33	357	3
Yugoslavia	0	0	0	0	0	0	0	(s)	0	152	0	(s)	153	1
Other	0	153	2	13	182	633	3	58	(s)	253	(s)	64	1,362	11
Total	21,148	5,140	1,892	5,533	9,214	22,756	384	2,875	155	26,663	20	3,347	99,125	819

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1988
(Thousand Barrels)

(Thousands Barrels)															
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	
Crude Oil (incl. lease condensate)															
Refinery	--	--	15,535	--	--	--	12,934	--	--	--	--	--	53,364	22,690	107,070
Tank Farms and Pipelines	--	--	1,401	--	--	--	63,128	--	--	--	--	--	102,596	10,071	29,049
Leases	--	--	37	--	--	--	1,483	--	--	--	--	--	16,643	1,138	21,075
Strategic Petroleum Reserve ¹	--	--	0	--	--	--	0	--	--	--	--	--	547,258	0	547,258
Alaskan In-Transit	--	--	0	--	--	--	0	--	--	--	--	--	0	0	22,741
Total	--	--	16,973	--	--	--	77,545	--	--	--	--	--	719,861	13,756	904,389
Total Stocks, All Oils (excl. Crude Oil)															
Refinery	36,061	3,005	39,066	40,117	8,442	15,451	64,010	9,784	76,190	47,112	5,498	1,312	139,896	12,306	63,205
Bulk Terminal	--	--	84,097	--	--	--	63,649	--	--	--	--	--	61,236	2,851	23,058
Pipeline	--	--	26,407	--	--	--	36,656	--	--	--	--	--	38,696	2,442	4,876
Natural Gas Processing Plant	98	39	137	114	53	2,173	2,340	1,185	4,674	2,094	165	116	8,234	207	82
Total	--	--	149,707	--	--	--	166,655	--	--	--	--	--	248,062	17,806	91,221
Pentanes Plus															
Refinery	17	0	17	238	16	135	389	282	348	70	1	13	714	1	33
Bulk Terminal	--	--	13	--	--	--	1,388	--	--	--	--	--	2,085	0	4
Pipeline	--	--	0	--	--	--	1,007	--	--	--	--	--	791	79	0
Natural Gas Processing Plant	3	9	12	23	13	392	428	351	528	584	68	19	1,550	65	18
Total	--	--	42	--	--	--	3,212	--	--	--	--	--	5,140	145	55
Liquefied Petroleum Gases															
Refinery	610	21	631	1,935	176	474	2,585	1,552	2,753	2,874	22	19	7,220	324	646
Bulk Terminal	--	--	1,204	--	--	--	11,081	--	--	--	--	--	31,736	55	806
Pipeline	--	--	1,184	--	--	--	6,801	--	--	--	--	--	6,072	429	0
Natural Gas Processing Plant	95	30	125	91	40	1,781	1,912	813	4,140	1,509	95	97	6,654	142	84
Total	--	--	3,144	--	--	--	22,379	--	--	--	--	--	51,682	950	1,518
Ethane															
Refinery	9	0	9	1	0	0	1	135	399	0	0	0	534	0	544
Bulk Terminal	--	--	2	--	--	--	1,348	--	--	--	--	--	10,214	0	11,564
Pipeline	--	--	0	--	--	--	1,163	--	--	--	--	--	2,336	129	0
Natural Gas Processing Plant	0	0	0	17	0	265	282	67	1,243	132	5	17	1,464	2	0
Total	--	--	11	--	--	--	2,794	--	--	--	--	--	14,548	131	0

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1988 (continued)

(Thousand Barrels)																
Commodity	PAD District I			PAD District II				PAD District III					PAD District IV		United States	
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.		Dist. V West Coast
Propane																
Refinery	316	4	320	1,082	21	110	1,213	688	1,496	1,333	6	4	3,527	77	110	5,247
Bulk Terminal	--	--	932	--	--	--	6,595	--	--	--	--	--	13,511	55	149	21,242
Pipeline	--	--	1,123	--	--	--	3,997	--	--	--	--	--	2,491	168	0	7,779
Natural Gas Processing Plant	55	25	80	43	25	951	1,019	475	1,328	124	38	58	2,023	100	49	3,271
Total	--	--	2,455	--	--	--	12,824	--	--	--	--	--	21,552	400	308	37,539
Normal Butane																
Refinery	244	17	261	597	91	268	956	490	485	1,080	2	7	2,064	176	416	3,873
Bulk Terminal	--	--	268	--	--	--	1,924	--	--	--	--	--	4,144	0	548	6,884
Pipeline	--	--	61	--	--	--	1,021	--	--	--	--	--	746	85	0	1,913
Natural Gas Processing Plant	38	3	41	15	15	452	482	223	998	423	35	15	1,694	34	9	2,260
Total	--	--	631	--	--	--	4,383	--	--	--	--	--	8,648	295	973	14,930
Isobutane																
Refinery	41	0	41	255	64	96	415	239	373	461	14	8	1,095	71	120	1,742
Bulk Terminal	--	--	2	--	--	--	1,214	--	--	--	--	--	3,867	0	109	5,192
Pipeline	--	--	0	--	--	--	620	--	--	--	--	--	499	47	0	1,166
Natural Gas Processing Plant	2	2	4	16	0	113	129	48	571	830	17	7	1,473	6	6	1,618
Total	--	--	47	--	--	--	2,378	--	--	--	--	--	6,934	124	235	9,718
Other Hydrocarbons and Alcohol																
Refinery	77	0	77	164	2	28	194	0	123	139	0	5	267	9	26	573
Total	--	--	77	--	--	--	194	--	--	--	--	--	267	9	26	573
Unfinished Oils																
Refinery	2,763	161	2,924	3,506	151	1,344	5,001	656	7,706	4,895	144	57	13,458	625	4,375	26,383
Naphthas and Lighter	1,647	164	1,811	1,891	104	254	2,249	291	5,873	2,545	128	2	8,839	320	3,846	17,065
Kerosene and Light Gas Oils	4,397	224	4,621	3,740	283	2,181	6,204	526	8,995	7,504	453	195	17,673	873	10,401	39,772
Heavy Gas Oils	1,020	141	1,161	2,477	1	1,102	3,580	494	5,238	3,764	97	0	9,593	371	4,922	19,627
Residuum	9,827	690	10,517	11,614	539	4,881	17,034	1,967	27,812	18,708	822	254	49,563	2,189	23,544	102,847
Total																

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1988 (continued)

(Thousand Barrels)																
Commodity	PAD District I			PAD District II				PAD District III					PAD District IV		United States	
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Motor Gasoline Blending Components																
Refinery	4,102	126	4,228	4,564	676	1,563	6,803	1,186	7,214	5,005	149	233	13,787	1,985	8,087	34,890
Bulk Terminal	--	--	84	--	--	--	379	--	--	--	--	--	749	27	242	1,481
Pipeline	--	--	16	--	--	--	61	--	--	--	--	--	0	0	0	77
Total	--	--	4,328	--	--	--	7,243	--	--	--	--	--	14,536	2,012	8,329	36,448
Aviation Gasoline Blending Components																
Refinery	0	0	0	154	0	3	157	0	0	39	0	0	39	0	33	229
Total	--	--	0	--	--	--	157	--	--	--	--	--	39	0	33	229
Total Finished Motor Gasoline																
Refinery	9,072	350	9,422	6,060	1,139	2,711	9,910	1,719	10,818	5,086	981	202	18,806	2,072	8,459	48,669
Bulk Terminal	--	--	34,273	--	--	--	27,984	--	--	--	--	--	10,074	1,836	11,499	85,666
Pipeline	--	--	15,350	--	--	--	17,712	--	--	--	--	--	18,629	1,165	2,317	55,173
Total	--	--	59,045	--	--	--	55,606	--	--	--	--	--	47,509	5,073	22,275	189,508
Finished Leaded Motor Gasoline																
Refinery	1,589	76	1,665	1,295	492	978	2,765	572	2,495	1,082	137	81	4,367	925	2,869	12,591
Bulk Terminal	--	--	7,417	--	--	--	7,857	--	--	--	--	--	3,184	763	3,891	23,112
Pipeline	--	--	2,218	--	--	--	4,359	--	--	--	--	--	4,138	470	360	11,545
Total	--	--	11,300	--	--	--	14,981	--	--	--	--	--	11,689	2,158	7,120	47,248
Finished Unleaded Motor Gasoline																
Refinery	7,483	274	7,757	4,765	647	1,733	7,145	1,147	8,323	4,004	844	121	14,439	1,147	5,590	36,078
Bulk Terminal	--	--	26,856	--	--	--	20,127	--	--	--	--	--	6,890	1,073	7,608	62,554
Pipeline	--	--	13,132	--	--	--	13,353	--	--	--	--	--	14,491	695	1,957	43,628
Total	--	--	47,745	--	--	--	40,625	--	--	--	--	--	35,820	2,915	15,155	142,260
Finished Aviation Gasoline																
Refinery	79	0	79	153	23	4	180	45	296	77	0	0	418	48	127	852
Bulk Terminal	--	--	274	--	--	--	329	--	--	--	--	--	106	16	202	927
Pipeline	--	--	17	--	--	--	128	--	--	--	--	--	30	0	0	175
Total	--	--	370	--	--	--	637	--	--	--	--	--	554	64	329	1,954

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1988 (continued)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total		
Naphtha-Type Jet Fuel																
Refinery	254	0	254	389	22	189	600	281	762	410	88	110	1,651	248	616	3,369
Bulk Terminal	--	--	842	--	--	--	520	--	--	--	--	--	283	18	574	2,237
Pipeline	--	--	73	--	--	--	105	--	--	--	--	--	403	148	378	1,107
Total	--	--	1,169	--	--	--	1,225	--	--	--	--	--	2,337	414	1,568	6,713
Kerosene-Type Jet Fuel																
Refinery	1,603	25	1,628	1,323	305	523	2,151	466	3,232	2,198	42	40	5,978	363	3,931	14,051
Bulk Terminal	--	--	3,924	--	--	--	3,298	--	--	--	--	--	2,149	228	2,370	11,969
Pipeline	--	--	3,954	--	--	--	3,077	--	--	--	--	--	5,223	200	796	13,250
Total	--	--	9,506	--	--	--	8,526	--	--	--	--	--	13,350	791	7,097	39,270
Kerosene																
Refinery	127	70	197	483	69	343	895	66	709	258	20	0	1,053	11	251	2,407
Bulk Terminal	--	--	2,100	--	--	--	699	--	--	--	--	--	206	30	45	3,080
Pipeline	--	--	123	--	--	--	114	--	--	--	--	--	248	0	8	493
Total	--	--	2,420	--	--	--	1,708	--	--	--	--	--	1,507	41	304	5,980
Distillate Fuel Oils																
Refinery	3,971	338	4,309	3,961	1,195	2,404	7,560	862	7,684	3,607	825	103	13,081	1,418	5,239	31,607
Bulk Terminal	--	--	20,102	--	--	--	11,342	--	--	--	--	--	4,286	592	4,390	40,712
Pipeline	--	--	5,690	--	--	--	7,636	--	--	--	--	--	7,030	421	1,188	21,965
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	6
Total	--	--	30,101	--	--	--	26,538	--	--	--	--	--	24,403	2,431	10,817	94,290
Residual Fuel Oils																
Refinery	2,399	69	2,468	1,867	310	153	2,330	289	4,216	3,226	154	10	7,895	367	6,152	19,212
Bulk Terminal	--	--	13,657	--	--	--	845	--	--	--	--	--	7,452	0	1,977	23,931
Pipeline	--	--	0	--	--	--	0	--	--	--	--	--	0	0	102	102
Total	--	--	16,125	--	--	--	3,175	--	--	--	--	--	15,347	367	8,231	43,245
Naphtha < 400 Deg. Petro. Feed. Use																
Refinery	407	0	407	322	0	52	374	43	1,041	275	7	5	1,371	21	150	2,323
Total	407	0	407	322	0	52	374	43	1,041	275	7	5	1,371	21	150	2,323
Other Oils > 400 Deg. Petro. Feed. Use																
Refinery	3	0	3	7	0	0	7	78	1,442	265	0	0	1,785	2	199	1,996
Total	3	0	3	7	0	0	7	78	1,442	265	0	0	1,785	2	199	1,996

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, April 30, 1988 (continued)

(Thousands Barrels)																
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Special Naphthas																
Refinery	449	47	496	155	0	96	251	107	1,214	99	198	0	1,618	7	118	2,490
Bulk Terminal	--	--	592	--	--	--	250	--	--	--	--	--	32	0	103	977
Total	--	--	1,088	--	--	--	501	--	--	--	--	--	1,650	7	221	3,467
Lubricants																
Refinery	308	829	1,137	1,140	0	171	1,311	14	4,313	1,551	428	0	6,306	78	1,222	10,054
Bulk Terminal	--	--	2,047	--	--	--	1,053	--	--	--	--	--	433	1	479	4,013
Total	--	--	3,184	--	--	--	2,364	--	--	--	--	--	6,739	79	1,701	14,067
Waxes																
Refinery	0	62	62	71	0	25	96	43	248	159	17	0	467	86	126	837
Total	--	--	62	--	--	--	96	--	--	--	--	--	467	86	126	837
Petroleum Coke																
Refinery	572	0	572	270	1,680	155	2,105	10	462	2,161	211	0	2,844	60	1,870	7,451
Total	572	0	572	270	1,680	155	2,105	10	462	2,161	211	0	2,844	60	1,870	7,451
Asphalt and Road Oil																
Refinery	2,007	338	2,345	5,087	2,285	1,528	8,900	720	1,091	732	1,533	318	4,394	2,984	2,129	20,752
Bulk Terminal	--	--	4,421	--	--	--	4,347	--	--	--	--	--	699	47	338	9,852
Total	--	--	6,766	--	--	--	13,247	--	--	--	--	--	5,093	3,031	2,467	30,604
Miscellaneous Products																
Refinery	177	40	217	160	5	13	178	54	412	173	0	0	639	33	247	1,314
Bulk Terminal	--	--	564	--	--	--	134	--	--	--	--	--	946	1	29	1,674
Pipeline	--	--	0	--	--	--	15	--	--	--	--	--	270	0	87	372
Natural Gas Processing Plant	0	0	0	0	0	0	0	21	0	1	2	0	24	0	0	24
Total	--	--	781	--	--	--	327	--	--	--	--	--	1,879	34	363	3,384
Total Stocks, All Oils																
	--	--	166,680	--	--	--	244,200	--	--	--	--	--	967,923	31,562	167,475	1,577,840

1 Includes 38,395 thousand barrels of domestic crude oil.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, April 30, 1988
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	9,082	34,613	2,297	24,411	16,125
Connecticut	513	1,158	253	1,154	261
Delaware, D.C., Maryland	321	1,541	117	1,199	1,353
Florida	1,195	5,210	188	1,859	1,380
Georgia	774	2,127	108	1,038	366
Maine, New Hampshire, Vermont	337	977	128	1,487	667
Massachusetts	178	1,397	44	1,447	930
New Jersey	1,512	7,877	129	4,850	6,177
New York	757	3,489	199	3,253	2,349
North Carolina	803	1,756	360	1,378	384
Pennsylvania	1,385	4,562	413	3,534	1,318
Rhode Island	121	525	w	514	w
South Carolina	483	1,224	142	831	w
Virginia	591	2,596	193	1,763	552
West Virginia	112	174	w	104	w
PAD District II Total	10,622	27,272	1,594	18,902	3,175
Illinois	1,822	5,158	246	3,417	1,134
Indiana	1,326	4,034	116	2,262	546
Iowa	690	1,104	w	863	w
Kansas, Nebraska	1,119	1,858	25	1,888	42
Kentucky	593	1,060	98	796	w
Michigan	1,037	3,313	154	1,727	135
Minnesota	634	1,157	w	1,554	206
Missouri	366	982	w	702	w
North Dakota, South Dakota	365	522	w	622	w
Ohio	779	3,432	440	1,853	382
Oklahoma	766	1,337	w	1,422	139
Tennessee	586	1,581	90	721	175
Wisconsin	539	1,734	w	1,075	74
PAD District III Total	7,551	21,329	1,259	17,367	15,347
Alabama	527	1,111	43	912	1,022
Arkansas	175	257	w	116	w
Louisiana	1,137	4,420	274	3,517	5,450
Mississippi	635	2,256	8	1,627	w
New Mexico	196	325	w	239	10
Texas	4,881	12,960	927	10,956	8,565
PAD District IV Total	1,688	2,220	41	2,010	367
Colorado	402	760	w	427	w
Idaho	122	164	w	94	w
Montana	573	482	w	520	70
Utah	222	320	w	423	106
Wyoming	369	494	w	546	w
PAD District V Total	6,760	13,198	296	9,629	8,129
Alaska	337	550	w	1,459	w
Arizona	237	374	w	303	w
California	3,770	8,610	149	5,404	5,497
Hawaii	84	574	w	472	w
Nevada	134	269	w	112	w
Oregon	636	759	w	661	224
Washington	1,562	2,062	w	1,218	1,019
U.S. Total	35,703	98,632	5,487	72,319	43,143

w = Withheld to avoid disclosure of individual company data.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, April 1988
(Thousand Barrels)

(Thousand Barrels)																										
Commodity			From I to			From II to			From III to			From IV to			From V to											
			II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV						
Crude Oil																										
	0	0	0	0	0	74	2,331	623	0	419	45,174	0	0	5,794	2,780	0	1,567	0	17,339	0						
Petroleum Products																										
Pentanes Plus	7,384	333	0	3,636	6,777	1,767	0	71,151	27,655	0	1,874	1,378	1,249	1,428	0	0	45	0								
Liquefied Petroleum Gases	0	0	0	0	196	0	0	0	819	0	0	63	148	0	0	0	0	0								
Unfinished Oils	0	0	0	501	4,305	39	0	1,214	4,472	0	0	566	1,101	0	0	0	0	0								
Blending Components				0	0	0	0	160	0	0	0	0	0	0	0	0	0	0								
Motor Gasoline	39	176	0	156	0	0	0	38	67	0	0	0	0	0	0	0	0	0								
Aviation Gasoline	0	0	0	1,987	1,427	917	0	42,016	12,174	0	991	507	0	956	0	0	0	0								
Finished Motor Gasoline	5,162	0	0	334	405	181	0	6,735	2,703	0	304	234	0	395	0	0	0	0								
Finished Leaded Motor Gasoline	1,105	0	0	1,653	1,022	736	0	35,281	9,471	0	687	273	0	561	0	0	0	0								
Finished Unleaded Motor Gasoline	4,057	0	0	0	0	22	0	163	161	0	0	0	0	0	0	0	0	0								
Finished Aviation Gasoline	11	0	0	0	0	0	0	239	1	0	324	42	0	98	0	0	0	0								
Naphtha-Type Jet Fuel	0	0	0	216	190	555	0	10,065	2,800	0	157	4	0	57	0	0	0	0								
Kerosene-Type Jet Fuel	230	0	0	11	100	0	0	345	0	0	0	0	0	0	0	0	0	0								
Kerosene	0	0	0	633	384	234	0	14,519	6,111	0	390	196	0	317	0	0	0	0								
Distillate Fuel Oil	1,879	0	0	33	130	0	0	709	218	0	0	0	0	0	0	0	0	0								
Residual Fuel Oil	0	0	0	22	8	0	0	0	54	0	0	0	0	0	0	0	0	0								
Petrochemical Feedstocks ¹	44	0	0	0	1	0	0	301	150	0	0	0	0	0	0	0	0	0								
Special Naphthas	0	5	0	0	0	0	0	907	298	0	12	0	0	0	0	0	0	0								
Lubricants	19	74	0	63	36	0	0	11	0	0	0	0	0	0	0	0	0	0								
Waxes	0	0	0	0	0	0	0	388	330	0	0	0	0	0	0	0	0	0								
Asphalt and Road Oil	0	63	0	14	0	0	0	76	0	0	0	0	0	0	0	0	0	0								
Miscellaneous Products	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Total	7,384	333	0	3,710	9,108	2,390	0	71,570	72,829	0	1,874	7,172	4,029	1,428	1,567	0	17,384	0								

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, April 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	III	IV
Crude Oil	0	0	0	10	2,331	623	0	45,174	0	0	5,794	2,780	0	3,312	0
Petroleum Products	7,205	0	2,050	6,593	1,767	55,562	22,640	0	1,862	1,378	1,249	1,428	0	0	0
Pentanes Plus	0	0	0	196	0	0	819	0	0	63	148	0	0	0	0
Liquefied Petroleum Gases	0	0	0	501	4,296	39	962	4,457	0	0	566	1,101	0	0	0
Blending Components	0	0	0	146	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	0	1,107	1,427	917	33,972	10,083	0	991	507	0	956	0	0
Aviation Gasoline	5,085	0	0	145	405	181	5,374	2,211	0	304	234	0	395	0	0
Finished Motor Gasoline	1,028	0	0	962	1,022	736	28,598	7,872	0	687	273	0	561	0	0
Finished Unleaded Motor Gasoline	4,057	0	0	0	0	22	53	152	0	0	0	0	0	0	0
Finished Aviation Gasoline	11	0	0	0	0	0	130	2,542	0	157	4	0	98	0	0
Naphtha-Type Jet Fuel	230	0	0	139	190	555	8,283	0	0	0	0	0	57	0	0
Kerosene-Type Jet Fuel	0	0	0	0	100	0	306	0	0	0	0	0	0	0	0
Kerosene	0	0	0	157	384	234	11,856	4,586	0	390	196	0	317	0	0
Distillate Fuel Oil	1,879	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7,205	0	2,060	8,924	2,390	55,562	67,814	0	1,862	7,172	4,029	1,428	3,312	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, April 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to					From V to			
	II	III	V	I	III	V	I	New England	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	0	0	0	64	0	0	419	0	419	0	0	0	1,567	0	14,027
Petroleum Products	179	333	0	1,586	184	0	15,589	245	2,320	13,024	5,015	12	0	0	45
Liquefied Petroleum Gases	0	0	0	0	9	0	252	0	0	252	15	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	160	0	53	107	0	0	0	0	0
Motor Gasoline Blending Components	39	176	0	10	0	0	38	0	38	0	67	0	0	0	0
Finished Motor Gasoline	77	0	0	880	0	0	8,044	0	27	8,017	2,091	0	0	0	0
Finished Leaded Motor Gasoline	77	0	0	189	0	0	1,361	0	0	1,361	492	0	0	0	0
Finished Unleaded Motor Gasoline	0	0	0	691	0	0	6,683	0	27	6,656	1,599	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	110	0	61	49	9	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	109	0	0	109	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	77	0	0	1,782	0	239	1,543	258	0	0	0	0
Kerosene	0	0	0	11	0	0	39	0	0	39	0	0	0	0	0
Distillate Fuel Oil	0	0	0	476	0	0	2,663	245	549	1,869	1,525	0	0	0	0
Residual Fuel Oil	0	0	0	33	130	0	709	0	656	53	218	0	0	0	0
Petrochemical Feedstocks¹	44	0	0	22	8	0	0	0	0	0	54	0	0	0	0
Special Naphthas	0	5	0	0	1	0	301	0	107	194	150	0	0	0	45
Lubricants	19	74	0	63	36	0	907	0	514	393	298	12	0	0	0
Waxes	0	0	0	0	0	0	11	0	11	0	0	0	0	0	0
Asphalt and Road Oil	0	63	0	14	0	0	388	0	7	381	330	0	0	0	0
Miscellaneous Products	0	15	0	0	0	0	76	0	58	18	0	0	0	0	0
Total	179	333	0	1,650	184	0	16,008	245	2,739	13,024	5,015	12	1,567	0	14,072

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, April 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	2,060	0	2,060	50,968	3,028	47,940	22,450	45,593	-23,143	623	8,574	-7,951	0	18,906	-18,906
Petroleum Products	74,787	7,717	67,070	36,417	12,180	24,237	8,404	100,680	-92,276	1,767	4,055	-2,288	3,302	45	3,257
Pentanes Plus	0	0	0	882	196	686	344	819	-475	0	211	-211	0	0	0
Liquefied Petroleum Gases	1,715	0	1,715	5,038	4,845	193	5,406	5,686	-280	39	1,667	-1,628	0	0	0
Unfinished Oils	160	0	160	0	0	0	0	160	-160	0	0	0	0	0	0
Blending Components															
Motor Gasoline	194	215	-21	106	156	-50	176	105	71	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	44,003	5,162	38,841	17,843	4,331	13,512	1,427	55,181	-53,754	917	1,463	-546	1,947	0	1,947
Finished Leaded Motor Gasoline	7,069	1,105	5,964	4,042	920	3,122	405	9,742	-9,337	181	629	-448	699	0	699
Finished Unleaded Motor Gasoline	36,934	4,057	32,877	13,801	3,411	10,390	1,022	45,439	-44,417	736	834	-98	1,248	0	1,248
Finished Aviation Gasoline	163	11	152	172	22	150	0	324	-324	22	0	22	0	0	0
Naphtha-Type Jet Fuel	239	0	239	43	0	43	0	564	-564	0	140	-140	422	0	422
Kerosene-Type Jet Fuel	10,281	230	10,051	3,034	961	2,073	190	13,022	-12,832	555	61	494	214	0	214
Kerosene	356	0	356	0	111	-111	100	345	-245	0	0	0	0	0	0
Distillate Fuel Oil	15,152	1,879	13,273	8,186	1,251	6,935	384	21,020	-20,636	234	513	-279	707	0	707
Residual Fuel Oil	742	0	742	218	163	55	130	927	-797	0	0	0	0	0	0
Petrochemical Feedstocks ¹	22	44	-22	98	30	68	8	54	-46	0	0	0	0	0	0
Special Naphthas	301	5	296	150	1	149	6	451	-445	0	0	0	0	0	0
Lubricants	970	93	877	317	99	218	155	1,217	-1,062	0	0	0	12	45	-33
Waxes	11	0	11	0	0	0	0	11	-11	0	0	0	0	0	0
Asphalt and Road Oil	402	63	339	330	14	316	63	718	-655	0	0	0	0	0	0
Miscellaneous Products	76	15	61	0	0	0	15	76	-61	0	0	0	0	0	0
Total	76,847	7,717	69,130	87,385	15,208	72,177	30,854	146,273	-115,419	2,390	12,629	-10,239	3,302	18,951	-15,649

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 30. Production of Residual Fuel Oil by Sulfur Content by PAD District, April, 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky. *	Minn., Wisc., Daks., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.		Dist. V West Coast		
Residual Fuel Oil	3,925	45	3,970	1,689	245	121	2,055	474	5,837	3,525	217	13	10,066	336	12,093	28,520
0.00 to 0.30% Sulfur	1,162	13	1,175	33	0	0	33	70	0	826	63	5	964	67	927	3,166
0.31 to 1.00% Sulfur	2,333	0	2,333	331	0	76	407	273	1,006	442	89	8	1,818	24	1,446	6,028
Greater Than 1.00% Sulfur	430	32	462	1,325	245	45	1,615	131	4,831	2,257	65	0	7,284	245	9,720	19,326

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District, April 30, 1988
(Thousand Barrels)

Thousands Barrels															
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.*	Minn., Wisc., Daks., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	PAD Dist. IV Rocky Mt.		PAD Dist. V West Coast	
Residual Fuel Oil – 0.00 to 0.30% Sulfur															
Refinery	119	55	174	38	0	0	38	72	0	1,176	5	3	1,256	615	2,152
Bulk Terminal	--	--	2,886	--	--	--	140	--	--	--	--	--	428	0	3,454
Total	--	--	3,060	--	--	--	178	--	--	--	--	--	1,684	615	5,606
Residual Fuel Oil – 0.31 to 1.00% Sulfur															
Refinery	1,308	0	1,308	313	0	38	351	68	1,002	183	83	7	1,343	54	3,911
Bulk Terminal	--	--	4,518	--	--	--	226	--	--	--	--	--	3,675	0	8,784
Total	--	--	5,826	--	--	--	577	--	--	--	--	--	5,018	54	12,695
Residual Fuel Oil – Greater than 1.00% Sulfur															
Refinery	972	14	986	1,516	310	115	1,941	149	3,214	1,867	66	0	5,296	244	13,149
Bulk Terminal	--	--	6,253	--	--	--	479	--	--	--	--	--	3,349	0	11,693
Total	--	--	7,239	--	--	--	2,420	--	--	--	--	--	8,645	244	24,842

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content, April 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to				From V to		
	II	III	V	I	III	V	I	New England	Central Atlantic	Lower Atlantic	I	II	III
Residual Fuel Oil	0	0	0	0	33	130	0	709	0	656	53	218	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	391	0	376	15	0	0
Greater Than 1.00% Sulfur	0	0	0	33	130	0	318	0	280	38	218	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, April 1988
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	1,793	0	0	1,793
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Neutral Zone	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	1,793	0	0	1,793
Other OPEC				
Ecuador	0	0	355	355
Gabon	0	0	0	0
Indonesia	0	0	10	10
Iran	0	0	0	0
Nigeria	0	164	0	164
Venezuela	0	0	4,416	4,416
Subtotal Other OPEC	0	164	4,781	4,945
Other				
Angola	0	0	0	0
Australia	0	217	0	217
Bahamas	0	0	368	368
Bolivia	0	0	0	0
Brazil	297	303	0	600
Brunei	0	0	0	0
Canada	0	415	385	800
China, People's Republic	0	0	0	0
Congo	0	0	0	0
Egypt	0	0	0	0
France	0	0	0	0
Ghana	152	0	0	152
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	0	240	240
Netherlands	0	0	0	0
Netherlands Antilles	0	177	235	412
Norway	0	0	0	0
Oman	0	0	0	0
Peru	0	194	560	754
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	222	0	222
Syria	0	0	194	194
Trinidad	0	0	298	298
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	0	200	1,344	1,544
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	0	0	293	293

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, April 1988 (continued)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Other Eastern Hemisphere	519	525	61	1,105
Subtotal Other	968	2,253	3,978	7,199
Total Imports	2,761	2,417	8,759	13,937

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, April 1988

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	1,480	2,200	8,363	12,043
Florida	0	266	802	1,068
Georgia	0	0	62	62
Maine	0	0	1,065	1,065
Maryland	0	271	0	271
Massachusetts	0	51	1,229	1,280
New Hampshire	0	0	293	293
New Jersey	380	737	1,276	2,393
New York	1,100	0	1,498	2,598
North Carolina	0	0	371	371
Pennsylvania	0	653	718	1,371
Rhode Island	0	222	0	222
South Carolina	0	0	90	90
Vermont	0	0	3	3
Virginia	0	0	956	956
PAD District II	0	0	79	79
North Dakota	0	0	28	28
Wisconsin	0	0	51	51
PAD District III	1,281	0	240	1,521
Alabama	0	0	240	240
Texas	1,281	0	0	1,281
PAD District V	0	217	77	294
California	0	217	0	217
Washington	0	0	77	77
All PAD Districts	2,761	2,417	8,759	13,937

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Appendix A

District Descriptions and Maps



PLATE 2. OF 1. 1894

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

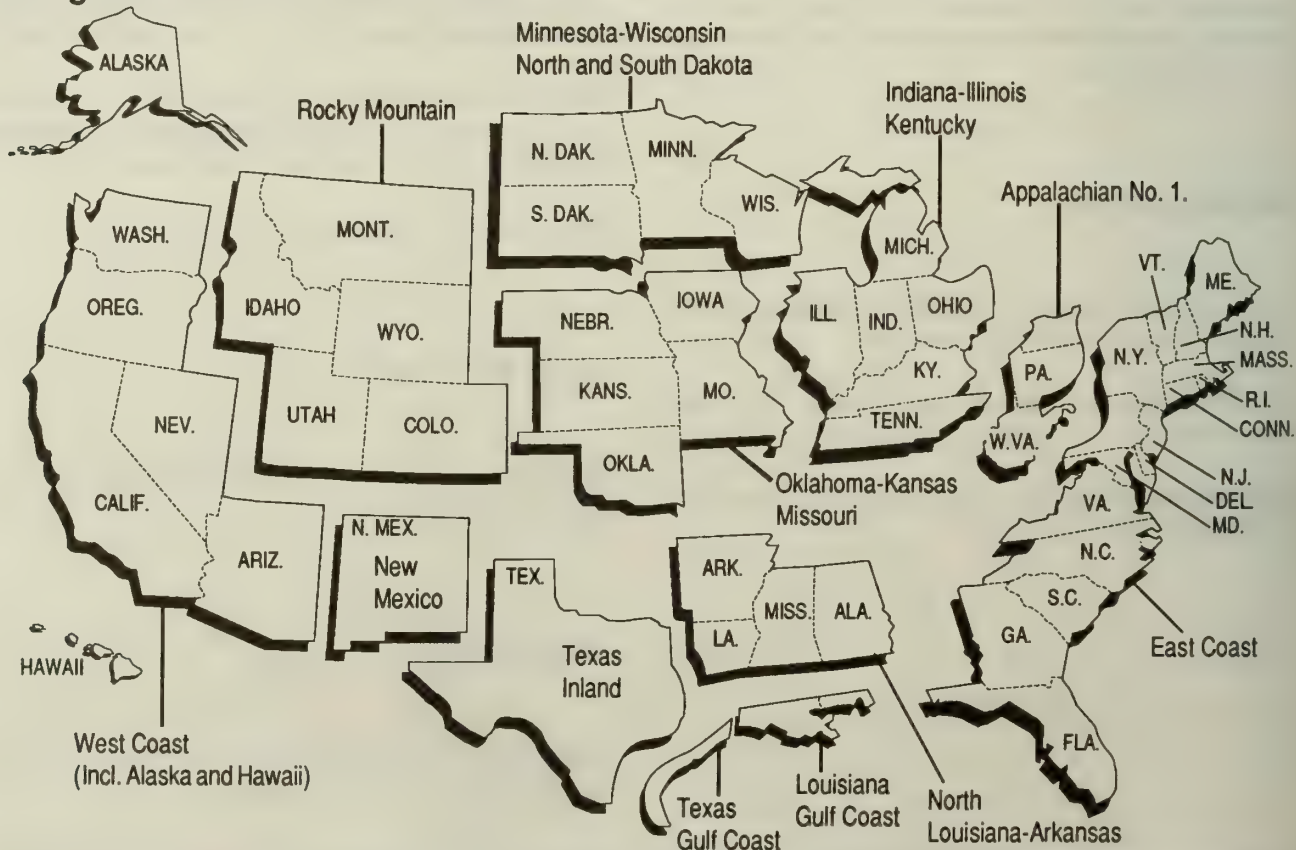
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

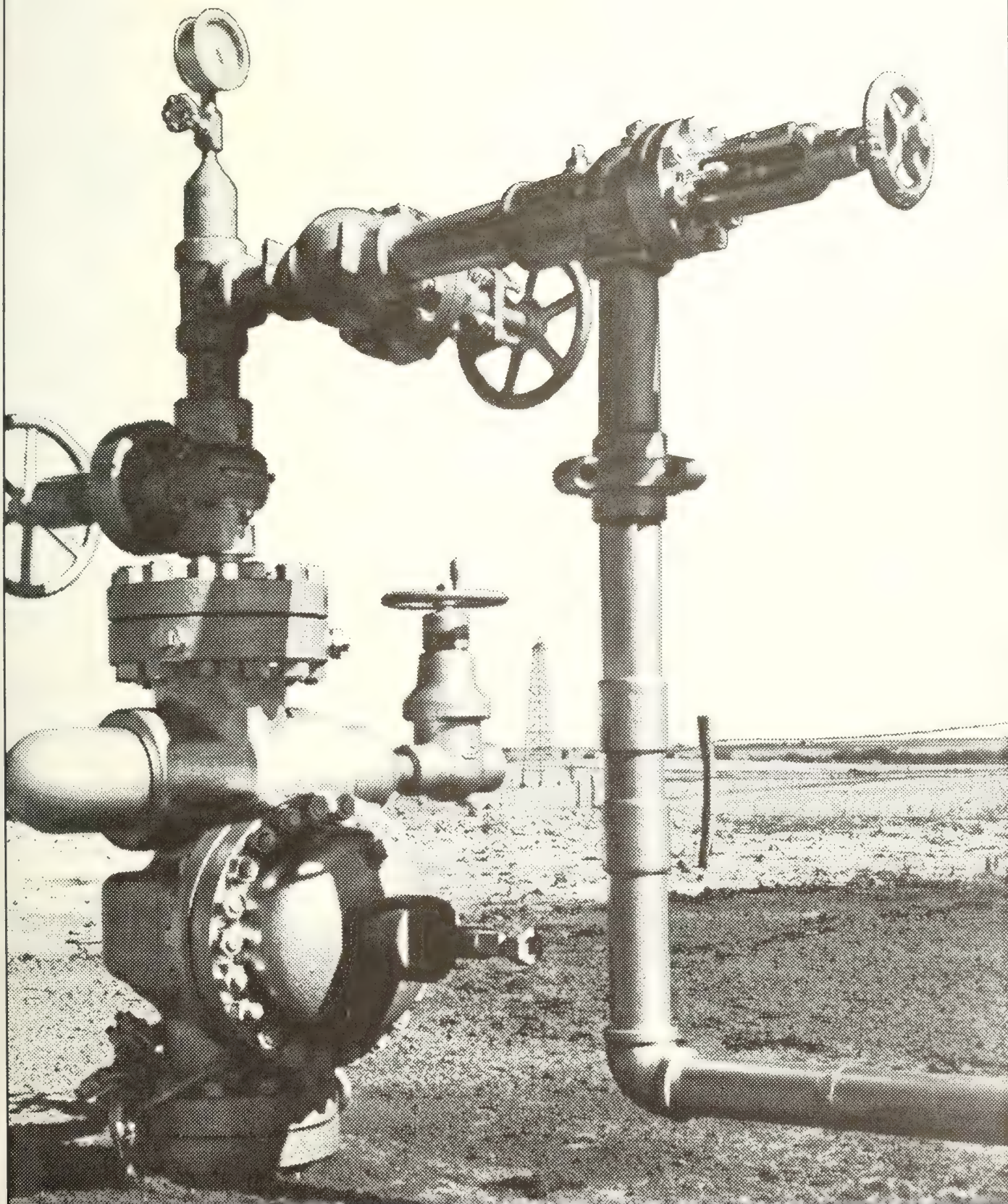


Refining Districts



Appendix B

Explanatory Notes





Appendix B

Explanatory Notes

Note 1: Data Collection Methodology

Background

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form

Number	Name
EIA-800	Weekly Refinery Report
EIA-801	Weekly Bulk Terminal Report
EIA-802	Weekly Product Pipeline Report
EIA-803	Weekly Crude Oil Stocks Report
EIA-804	Weekly Imports Report
EIA-810	Monthly Refinery Report
EIA-811	Monthly Bulk Terminal Report
EIA-812	Monthly Product Pipeline Report
EIA-813	Monthly Crude Oil Report
EIA-814	Monthly Imports Report
EIA-816	Monthly Natural Gas Liquids Report
EIA-817	Monthly Tanker and Barge Movement Report
EIA-820	Annual Refinery Report

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect weekly data on basic refinery operations and on crude oil and major petroleum products stocks and imports. Data from the WPSRS are published in the *Weekly Petroleum Status Report* (WPSR) and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (PSM). A description of the WPSRS survey forms follows in Explanatory Note 1.1.

Forms EIA-810 through 814, 816, and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. These surveys are the primary source of data for the

"Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Explanatory Note 1.2.

Data are also obtained on magnetic tape from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Explanatory Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 using data from an external source. Estimates from the EIA's weekly sample surveys (inaugurated in April 1979) replaced the estimates from the external source for all but the imports series in January 1980, and replaced the imports estimates in June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports all shipments entering the United States. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe which includes all petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. The selected sample size is 153.

EIA-801: Based on the EIA-811 universe which includes every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. The selected sample size is 70.

EIA-802: Based on the EIA-812 universe which includes all product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. The selected sample size is 43.

EIA-803: Based on the EIA-813 universe which includes companies that carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The selected sample size is 79.

EIA-804: Based on the EIA-814 universe which covers each company, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The selected sample size is 83.

Sampling Method

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period begins and ends each Friday at 7 a.m. All canvassed firms must file reports by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t), is divided by the amount reported by the sample of companies for the most recent month, (M_s). The result is multiplied by the amount reported by the sample of companies for the current week, (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly refinery inputs and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratios multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for selected products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rate

The response rate for the published estimates is usually between 97 and 100 percent of the sampled respondents.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other

survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 260 respondents report on the EIA-810.

EIA-811: Every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 320 respondents report on the EIA-811.

EIA-812: All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the EIA-812.

EIA-813: All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 180 respondents report on the EIA-813.

EIA-814: All companies, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. Approximately 1,500 respondents report on the EIA-814.

EIA-816: All facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 1,050 respondents report on the EIA-816.

EIA-817: All companies that have custody of crude oil or petroleum products transported by tanker or barge between

PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 50 respondents report on the EIA-817.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Every three years an extensive survey is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, Federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month, with the exception of the EIA-814 which is due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed for companies that do not respond to EIA Forms 810-813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the EIA-814 and 817 are not imputed.

Response Rate

The response rate is generally 99 to 100 percent by the time the data are first published. Nonrespondents are contacted in

writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data tapes are the only source of export statistics and are used to augment the import data collected by the EIA.

Import Statistics (IM-145)

Coverage

Census import statistics used in the PSM reflect both government and nongovernment imports of merchandise from foreign countries and U.S. possessions into the United States (the 50 States and the District of Columbia) without regard to whether or not a commercial transaction is involved. The following types of transactions are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Census export statistics used in the PSM reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

1. Merchandise shipped in-transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
2. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census. Exporters are required to file export documents with Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey descriptions and other details, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form EIA-814, *Monthly Imports Report*. In addition, imports of NGL's are obtained from the Census Bureau Tabulation IM-145. The Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. Additional data taken from the IM-145 are relatively small quantities of naphtha-type and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the Form EIA-814 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks. A negative result (-) would represent a buildup of stocks. For a description of survey forms used to make stock withdrawal or addition calculations, see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports, and stock withdrawals. Crude oil disposition is the sum of exports, refinery input, losses, stock additions, and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supply from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. All except four of the producing States report data monthly. These States are New York, Ohio, Pennsylvania, and Virginia. Estimates of monthly production for these States are made using methodologies explained in the next paragraph. After the end of each calendar year, the monthly numbers are updated using the annual reports of the State conservation agencies and the Minerals Management Service.

Table 11 of this publication provides information on crude oil production for the most recent month for which State values are available. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly State crude oil production data become available. In order to present more timely crude oil production values, the Energy Information Administration prepares a forecast estimate on the first day of the reference month and revised estimates approximately 75 days later which are based on historical production patterns and are summed to obtain national and Petroleum Administration for Defense District (PADD) level crude oil production values. The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. The forecast estimates are published in the *Weekly Petroleum Status Report* and are also used to calculate the preliminary estimates in the "Summary Statistics" section of the *Petroleum Supply Monthly*.

These forecast estimates are then replaced by the revised estimates in the next issue of the *Petroleum Supply Monthly*.

Table B1 is intended to provide further insight into EIA's estimates of monthly U.S. crude oil production. It shows (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon data collected on Form EIA-182, *Domestic Crude Oil First Purchase Report*, is

used in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the reference month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available 74 days after the reference month and includes imputation as

needed. A final revision is published concurrent with publication of EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is used in the *Petroleum Supply Annual*.

Table B1. U.S. Crude Oil¹ Production Estimates and Reported State² Data by Month (Thousand Barrels per Day)

Date of Data Availability	Month of Production															
	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88
Reported State Data ³																
2-14-87	0															
3-14-87	1971	0														
4-14-87	4704	1942	0													
5-14-87	7606	4844	2033	0												
6-14-87	7594	7291	4813	2057	0											
7-14-87	7594	7291	7579	4618	2068	0										
8-14-87	8376	8068	7667	7615	4654	2012	0									
9-14-87	8380	8068	8152	8110	7218	4665	1999	0								
10-14-87	8409	8290	8356	8288	8210	7672	4264	1997	0							
11-14-87	8413	8291	8356	8412	8211	8139	7276	2971	1945	0						
12-14-87	8409	8292	8369	8411	8255	8140	7752	7724	5008	2088	0					
1-14-88	8409	8292	8369	8412	8255	8179	7756	7731	7252	4866	2152	0				
2-14-88	8410	8294	8370	8412	8256	8191	8095	8034	8039	7703	5296	2127	0			
3-14-88	8410	8294	8370	8412	8256	8191	8095	8071	8039	8190	8205	3208	2086	0		
4-14-88	8362	8268	8342	8377	8218	8157	8133	8093	8090	8249	8286	8204	5111	2161	0	
5-14-88	8480	8389	8464	8498	8336	8279	8251	8210	8205	8365	8401	8318	7156	5743	2151	0
6-14-88	8480	8389	8464	8498	8336	8279	8251	8210	8206	8365	8403	8318	8086	8103	5767	2095
Producing States Without Reported Monthly Production ⁴																
6-14-88	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	16
Month of Production																
Type of Estimate	1-87	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88
Production Estimate																
Original ⁵	8354	8384	8336	8361	8296	8303	8287	8204	8162	8281	8283	8348	8395	8353	8306	8269
Interim ⁶	8477	8318	8349	8426	8305	8263	8242	8190	8190	8293	8330	8340	8245	8376	8347	8268
Form EIA-182																
Initial	8034	8079	8214	8287	8149	8168	8078	8022	8110	8151	8162	8144	8017	8239	8138	8106
Revised	8232	8210	8266	8306	8161	8178	8082	8032	8084	8153	8173	8180	8048	8206	8134	
Final ⁷	8480	8389	8464	8498	8336	8279	8251	8210	8205	8364	8397	8318				

¹ Includes lease condensate.

² Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

³ Includes EIA prorated monthly production in 1987 (annual average of 115 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

⁴ Michigan, New York, Ohio, Pennsylvania, and Virginia are counted as having monthly reported data in 1987 after their annual reports were received.

⁵ Original estimates were made on the first of each month.

⁶ January and February 1987 interim estimates were made on March 5 and April 6, respectively. Interim estimates after February 1987 were made 44 days after the end of the production month.

⁷ Published in the *Petroleum Supply Annual* 1987 DOE/EIA 0340(87)/2.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries reported for all refineries on Form EIA-810, *Monthly Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, and the Virgin Islands, which are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Product supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production net having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in-transit is also included. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers. For survey descriptions and other details, see Explanatory Note 1.2.

Note 6: Average Stock Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, residual oil, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels are described below.

The graphs displaying inventory levels of crude oil and petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the report inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases, were derived using monthly data from 1979-1985.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the *average range* is twice the standard deviation.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other details, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the "Summary Statistics" section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition. statistics on the referenced line appear in Table 1 of the "Detailed Statistics," except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Gross Imports Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted for Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- Crude Losses and Product Supplied appear as labeled in Table 4.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.
- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, ethylene, propane, propylene, butane, butylene, and isobutane. The statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases. The statistics on the referenced line are aggregated from Table 4 of the "Detailed Statistics," except where noted.

- Total production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.
- Line (5): *SPR Imports* are reported on survey Form EIA-814.
- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude oil losses minus crude oil product supplied in Table 2.
- Line (14): Natural Gas Plant Liquids (NGPL) *Field Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.
- Line (15): NGPL *Net Imports* equals the sum of the imports of pentanes plus minus the exports of pentanes plus in Table 2.
- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the stock withdrawal (+) or addition (-) of pentanes plus in Table 2.
- Line (17): *Total NGPL Supply* equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids *Stock Withdrawal (+) or Addition (-)* equals the aggregate stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components in Table 2.
- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.
- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).
- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of natural gas

liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus field production of other liquids; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.
- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.
- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).
- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of natural gas liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus total field production of other liquids; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.
- Line (29): *Refined Products Stock Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.
- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.
- Lines (31) through (34): Equal the respective products supplied in Table 2.
- Line (35): *Other Products Supplied* equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, naphtha <400 Deg. F. for petrochemical feedstock use, other oils >400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products supplied in Table 2.
- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.
- The sum of lines (38) and (39): *Stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by

the *Strategic Petroleum Reserve* equals ending stocks of crude oil in Table 2.

- Line (43): *Stocks of Finished Refined Products* equals the sum of liquefied petroleum gases and finished petroleum products stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1,462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the "Summary Statistics," is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the "Summary Statistics." This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108.
- Other Petroleum Products: 1983 - 248.

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1981 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA

and API estimates of "recast" motor gasoline product supplied.

EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ¹
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

¹FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied (Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,83
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: Natural Gas Liquids Reporting Changes

Beginning in January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record-keeping practices used by the industry. The following table shows the product category under the new and old basis. Four PSRS surveys were modified beginning in January 1984. They were:

- EIA-810 *Monthly Refinery Report*
- EIA-811 *Monthly Bulk Terminal Report*
- EIA-812 *Monthly Product Pipeline Report*
- EIA-816 *Monthly Natural Gas Liquids Report*

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Adjustments are applied to NGL imports data to make them consistent with the revised reporting system (See Explanatory Note 14).

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
1979-1983 Product Basis					
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Note 14: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquids (NGL) supply data, moving from a nine-product slate basis to a five-component slate basis that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first six months of 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by

Table B5. Algorithm for Allocating NGL Imports/Exports (Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline An Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15: Addition of Crude Oil Pipeline Movements Data

Beginning in January 1985, inter-PAD District pipeline movements of crude oil were included in the PSM. Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the PSM that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6-10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products." 1985 crude oil imports and unfinished oil imports in Tables 6 through 10 are now reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes movements by pipeline as well as by tanker and barge.

- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts." A line was added to report crude oil movements.

- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes net movements by pipeline as well as by tanker and barge.

Note 16: 1986 Changes in Petroleum Industry Reporting

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks ¹ (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGL's & LRG's	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	—	—	2,314	318,695

¹ Stocks as of December 31, 1985.

Also, beginning in January 1986, a major integrated petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities have been combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which will show a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes have been made to tables in the PSM either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes are:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
 - Alaskan crude oil receipts are now shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
 - The "petrochemical feedstock use" and "other use" are no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
 - Imports of unfinished oils are now separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" are shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely and consistent energy information.

Changes in Data Collection and Reporting Systems

- Fresh feed input to catalytic cracking units, hydrocracking units and cokers were added to the Form EIA-810, *Monthly Refinery Report*.

Changes in Publications

- The "Appalachian No. 2" Refining District has been combined with the "Indiana, Illinois, Kentucky," Refining District. This affects PSM Tables 12-15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units and cokers are included in Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

Clarification

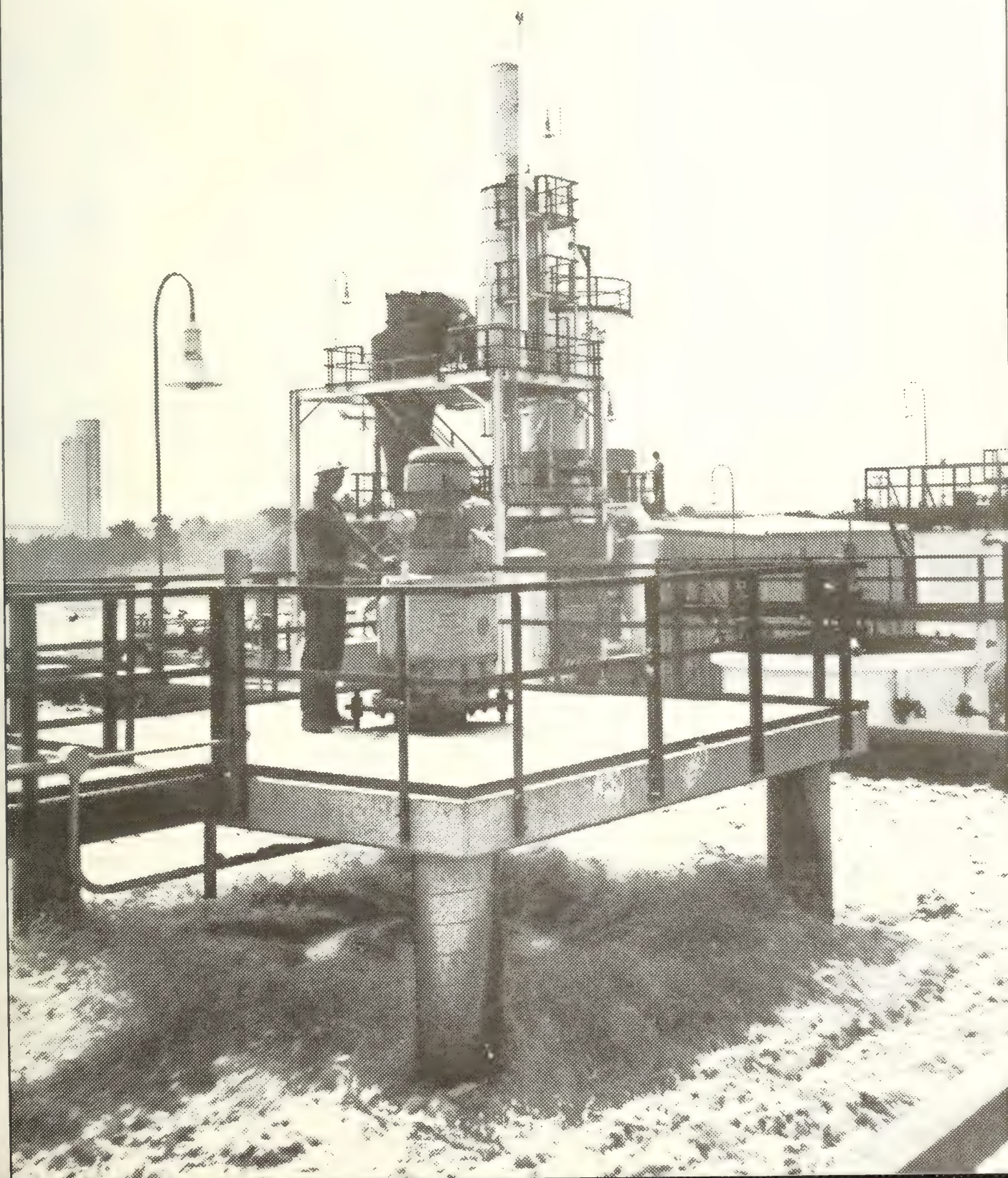
In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during

- Effective with the January 1987 data, all Foreign Trade Zone facilities located within the 50 United States are considered domestic entities and are included in statistics in the PSM. The principal differences in the PSM data series are about a 1 percent increase in crude oil imports and a 3 percent decrease in product imports.

University of California

Appendix C

Impact of
Resubmissions
on Major
Series, 1988



1877 U. S. 1000000000

Table C1. Impact of Resubmissions on Major Series, 1988
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs													
Crude Oil	12,975	0	12,715	-19	--	--	--	--	--	--	--	--	-10
LPG's	366	-8	336	6	--	--	--	--	--	--	--	--	-1
Production													
LPG's	1,723	0	1,757	6	--	--	--	--	--	--	--	--	3
Finished Motor Gasoline	6,723	7	6,736	-5	--	--	--	--	--	--	--	--	1
Naphtha-Type Jet Fuel	184	0	178	0	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	1,231	0	1,205	0	--	--	--	--	--	--	--	--	0
Kerosene	104	0	118	0	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	3,008	0	2,683	-6	--	--	--	--	--	--	--	--	-3
Residual Fuel Oil	1,009	0	997	-5	--	--	--	--	--	--	--	--	-3
Imports													
Crude Oil	4,619	28	4,692	27	--	--	--	--	--	--	--	--	28
Finished Motor Gasoline	324	0	365	0	--	--	--	--	--	--	--	--	0
Naphtha-Type Jet Fuel	3	0	3	0	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	80	0	64	0	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	355	0	330	8	--	--	--	--	--	--	--	--	4
Residual Fuel Oil	737	22	792	30	--	--	--	--	--	--	--	--	26
Other Products	556	3	503	2	--	--	--	--	--	--	--	--	2
Stocks (Thousand Barrels)													
Crude Oil	345,479	84	347,835	124	--	--	--	--	--	--	--	--	104
Unfinished Oils	95,338	0	97,786	-6	--	--	--	--	--	--	--	--	-3
LPG's	80,741	-1,953	70,191	16	--	--	--	--	--	--	--	--	-969
Total Motor Gasoline	239,464	237	240,661	-343	--	--	--	--	--	--	--	--	-53
Naphtha-Type Jet Fuel	8,366	3	6,731	-131	--	--	--	--	--	--	--	--	-64
Kerosene-Type Jet Fuel	37,912	-2	36,889	-27	--	--	--	--	--	--	--	--	-15
Distillate Fuel Oil	127,155	284	109,640	116	--	--	--	--	--	--	--	--	200
Residual Fuel Oil	46,628	-60	45,465	-43	--	--	--	--	--	--	--	--	-52
Product Supplied													
LPG's	2,069	71	1,982	-70	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline	6,679	-1	7,004	14	--	--	--	--	--	--	--	--	7
Naphtha-Type Jet Fuel	173	0	237	5	--	--	--	--	--	--	--	--	2
Kerosene-Type Jet Fuel	1,360	0	1,270	1	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	3,517	-9	3,511	8	--	--	--	--	--	--	--	--	-1
Residual Fuel Oil	1,578	24	1,601	24	--	--	--	--	--	--	--	--	24
Major Products Supplied	15,376	86	15,605	-19	--	--	--	--	--	--	--	--	33

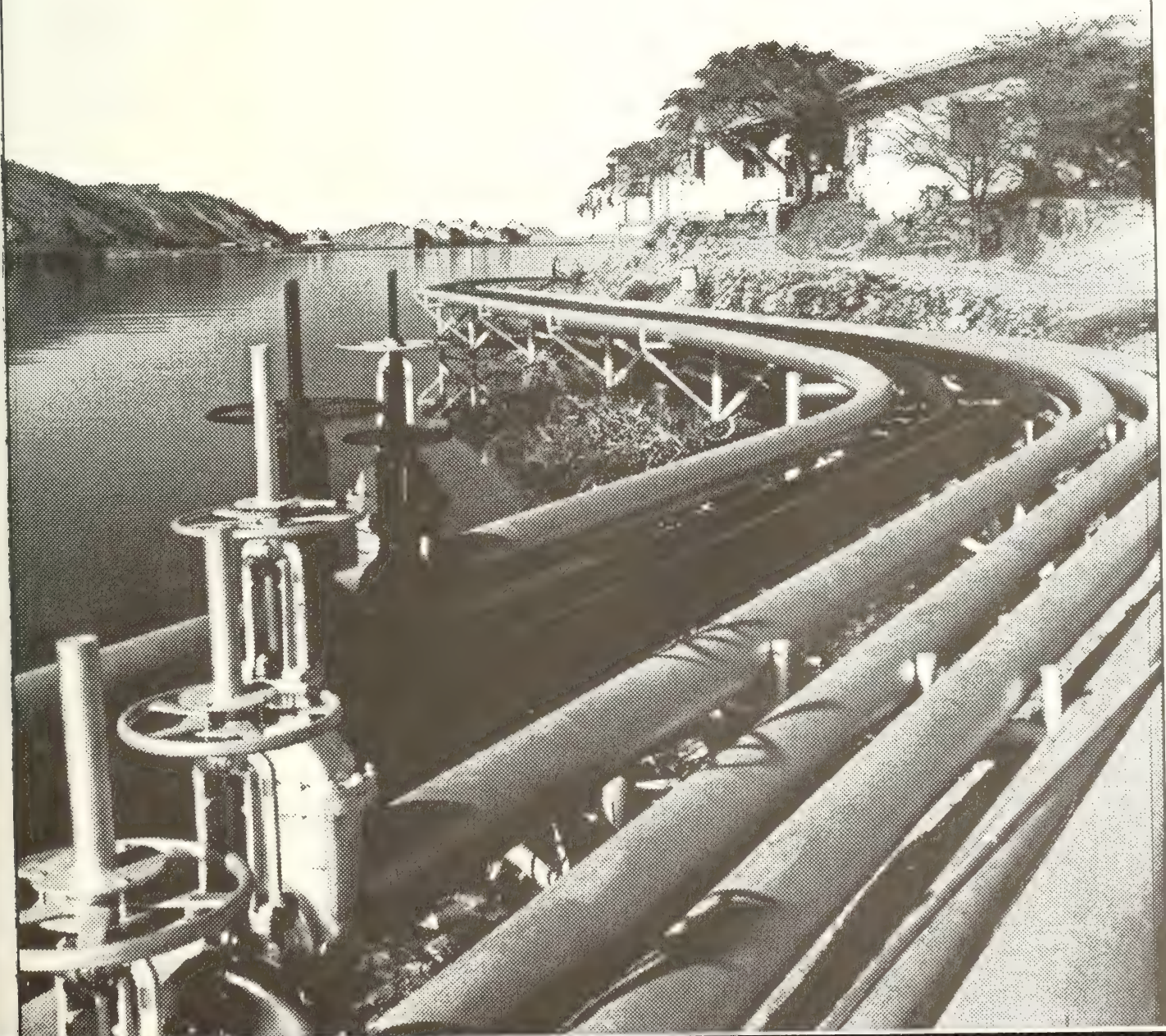
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

1870-1871

Glossary



1111-1112 23-11-11

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}(\text{CH}_2)_n\text{OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr.}_{60^\circ \text{F}} / 60^\circ \text{F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cut-back asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C₄H₈), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 degrees F to 750 degrees F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. See *Motor Gasoline (Finished)*.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 degrees F to 1000 degrees F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See *Butane*.

Isohexane. A saturated branch-chain hydrocarbon, (C₆H₁₄). It is a colorless liquid that boils at a temperature of 156.2 degrees F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C₄), an alkylation process feedstock, and normal pentane and hexane into

isopentane, (C₅), and isohexane, (C₆), high-octane gasoline components.

Isopentane. See *Natural Gasoline and Isopentane*.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10-percent recovery point, a final boiling point of 572 degrees F, and a minimum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 degrees F at the 10-percent recovery point and a final maximum boiling point of 572 degrees F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 degrees F to 650 degrees F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants"

includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. A product of hydrotreating, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a range in distillation temperatures from 122 to 158 degrees F at the 10-percent recovery point and from 365 to 374 degrees F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.

Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Naphtha-type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 degrees F at the 20-percent recovery point and 470 degrees F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemi-

cals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F" and "Other oils over 400 degrees F."

Naphtha-Less Than 400 Degrees F. A naphtha with a boiling range of less than 400 degrees F that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. Oils with a boiling range of over 400 degrees F that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 degrees F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank and is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per barrel (42 U.S. gallons).

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C₆H₅CH₃), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas, kerosene, light and heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 degrees F (D1321)-60 maximum. Viscosity at 210 degrees F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscos-

ity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Working Storage Capacity. The volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C₆H₄Y(CH₃)₂), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

Energy Facts 1986 is available for \$2.25 from:

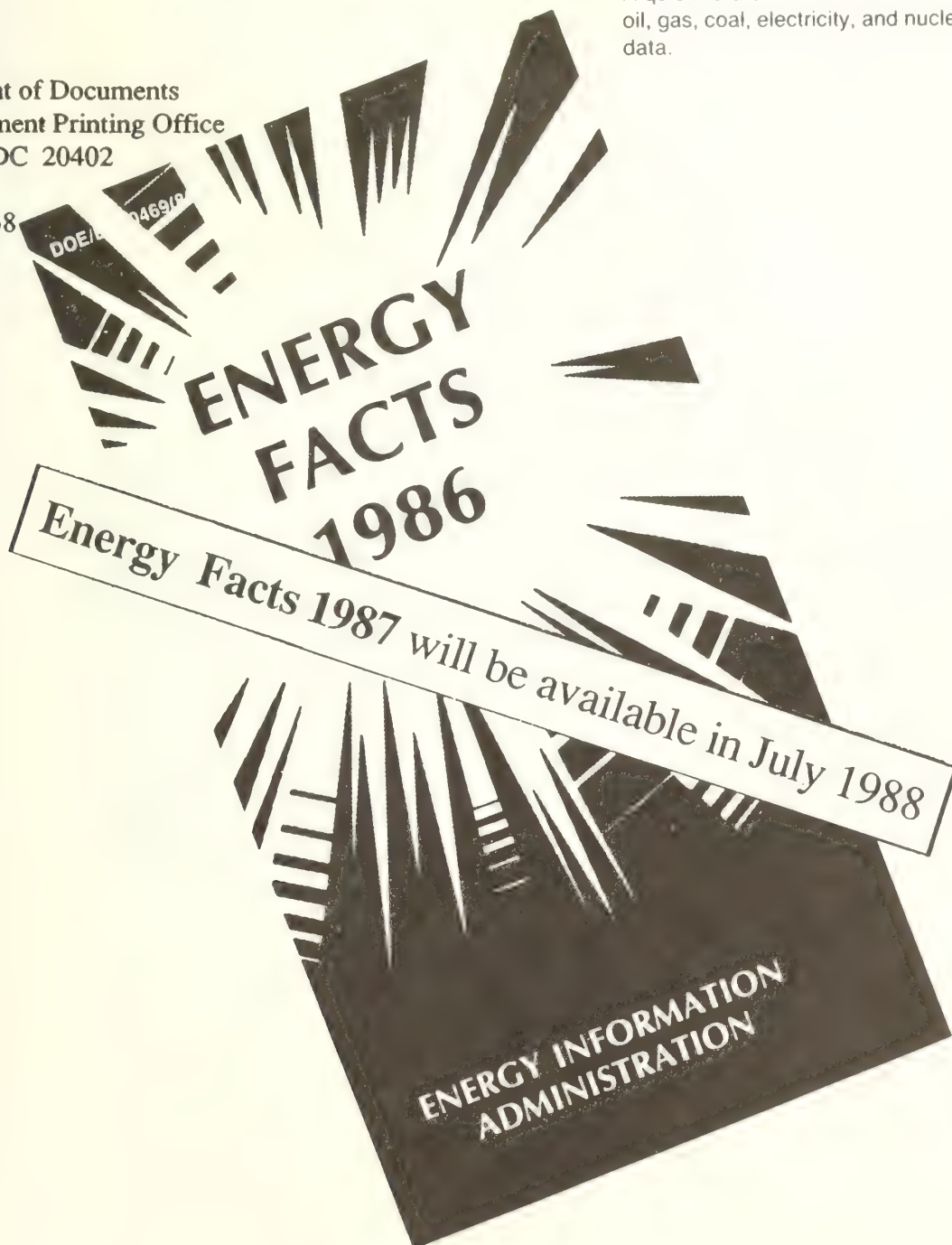
Energy Information Administration
National Energy Information Center, EI-231
Washington, DC 20585

(202) 586-8800

Superintendent of Documents
U. S. Government Printing Office
Washington, DC 20402

(202) 783-3238

A quick reference to U.S. and international
oil, gas, coal, electricity, and nuclear energy
data.



UNITED STATES OF AMERICA

AFTER THE DECLARATION OF INDEPENDENCE OUR FOUNDING FATHERS WROTE SOMETHING EVEN MORE IMPORTANT.

Ten years after the signing of the Declaration of Independence our founding fathers created what historians have called the greatest single document struck off by the hand and mind of man.



Our founding fathers created the Constitution of the United States.

For the first time in history, power was granted by the people to the government, and not by the government to the people.


The freedom unleashed by the Constitution allowed Americans to develop their talents and abilities to the fullest. And attain what is now known the world over as the *American Dream*.

As we commemorate the Bicentennial of the Constitution, there is no better way for you as an American to reaffirm the principles for which our country stands than to learn more about the Constitution.

The words we live by.

THE CONSTITUTION

The words we live by

To learn more about the Constitution write: Constitution, Washington, D.C. 20599. The Commission on the Bicentennial of The U.S. Constitution. 

Energy Information Administration
U.S. Department of Energy
Forrestal Building, El-231
Washington, DC 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPT. OF ENERGY
PERMIT NO. G 20

FIRST CLASS MAIL



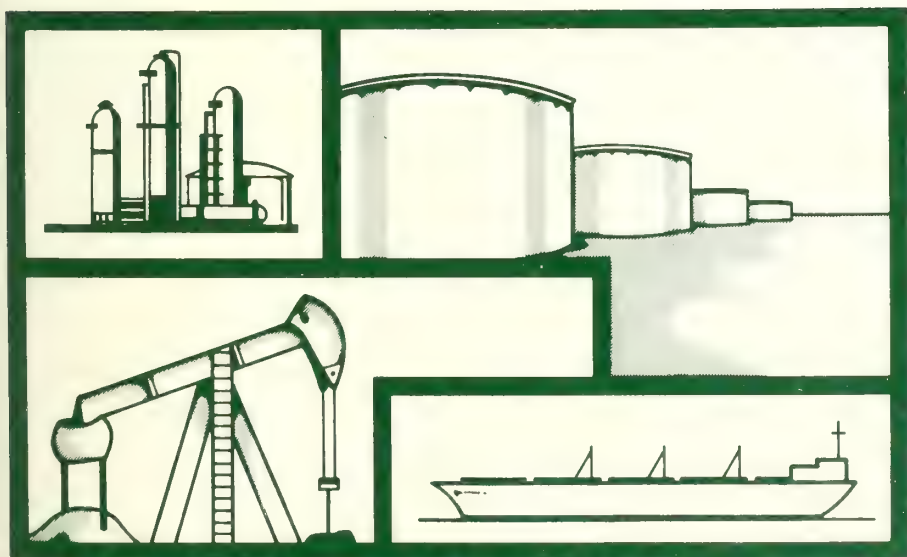
U.S. DEPARTMENT OF ENERGY
FORRESTAL BUILDING, EL-231
WASHINGTON, DC 20585

See Notice Inside Cover

Energy Information Administration

Petroleum Supply Monthly

May 1988



This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, EI-231
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, DC 20585
(202)586-8800

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202)783-3238

We thank the following for the use of their photographs and illustrations in this report.

Cities Service Co., page ix (courtesy of the American Petroleum Institute).
Cities Service Co., page xii (courtesy of the American Petroleum Institute).
Ashland Oil Co., page xiii (courtesy of the American Petroleum Institute).
Champlin Petroleum Co., page xv (courtesy of the American Petroleum Institute).
Standard Oil Co., Page 1 (courtesy of the American Petroleum Institute).
PPG Industries, Inc., page 69 (courtesy of the American Petroleum Institute).
Standard Oil Co., page 73 (courtesy of the American Petroleum Institute).
Texaco Inc., page 91 (courtesy of the American Petroleum Institute).
Atlantic Richfield Co., page 95 (courtesy of the American Petroleum Institute).

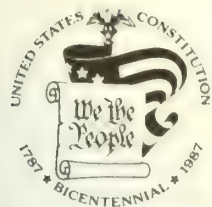
Released for printing: July 25, 1988

Important Notice

As required by Federal Government regulation, the Energy Information Administration (EIA) is conducting a review of its publications mailing list. If you are on the EIA mailing list, you will receive a renewal notice, which must be filled out and returned to us. If we do not receive a response by August 31, 1988, your name will be removed from the EIA mailing list. If you have any questions, you may call the National Energy Information Center at (202) 586-8800.

Note: This review **does not** apply to paid subscription lists maintained by the U.S. Government Printing Office.

The *Petroleum Supply Monthly* (ISSN 0733-0553) is published monthly by the Energy Information Administration, 1000 Independence Avenue, SW, Washington, DC 20585, and sells for \$49.00 per year (price is subject to change without advance notice). Application to mail at second-class postage rates is pending at Washington, DC 20066-9998, and at additional mailing offices. POSTMASTER: Send address changes to *Petroleum Supply Monthly*, Energy Information Administration, EI-231, Independence Avenue, SW, Washington, DC 20585.



DOE/EIA-0109(88/05)
Distribution Category UC-98

Petroleum Supply Monthly

May 1988

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

The Library of the

OCT 17 1988

University of Illinois
at Urbana-Champaign

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), *Weekly Coal Production* (WCP), and *Electric Power Monthly* (EPM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202)586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a holiday) after 5:00 p.m. Monthly petroleum supply data for the current month are also provided and are updated by 5:00 p.m. on the 24th of each month. Monthly statistics from the *Electric Power Monthly* are available on or about the first working day of each month. Questions or comments on petroleum data should be directed to T.C. Swann at (202)586-1155. Questions or comments on coal data should be directed to Hans Becker at (202)586-6874. Questions on electricity data should be directed to Dean Fennell at (202)586-5311.

Access Instructions:

- 1) DIAL (202)586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```
***                                     ***
***                                     ***
***      WELCOME TO THE                ***
***      ENERGY INFORMATION ADMINISTRATION ***
***      ELECTRONIC PUBLICATION SYSTEM ***
***                                     ***
```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT
PSMR - PETROLEUM SUPPLY MONTHLY
STKS - PSM STATE STOCKS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT
EPMS - U.S. ELECTRIC POWER STATISTICS

PLEASE ENTER THE DESIRED REPORT ID... **PSMR**

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

\$WP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED MONTHLY STATISTICS FROM PETROLEUM SUPPLY MONTHLY (PSM) SYSTEM. THIS SYSTEM WILL DISPLAY THE MOST RECENT PSM DATA FOR TABLES 4, 11, 18, AND 24. PLEASE TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:

- 7 Data Bits
- 1 Stop Bit
- Even Parity

EIA Petroleum Data Available In Machine-Readable Files

Petroleum supply statistics are available on five magnetic tapes. One tape contains final 1983 through 1986 petroleum supply statistics by month, taken from the *Petroleum Supply Annual*; the second contains preliminary 1987 and 1988 statistics to date by month, from the *Petroleum Supply Monthly*. Three additional tapes contain current and historical statistics on imports of crude oil and petroleum products into the United States and Puerto Rico. The current import tape contains preliminary 1987 and 1988 statistics to date by month. The two historical import tapes contain final statistics by month. One tape contains statistics for the years 1977 through 1985; the second contains 1986 statistics. The current tapes are updated each month. All tapes are fully documented.

Tapes are sold for \$200 each and should be referenced by National Technical Information Service (NTIS) number:

<i>Petroleum Supply Annual</i> -- 1983-1987	PB88-206719
<i>Petroleum Supply Monthly</i> -- Preliminary (1988)	PB88-207501
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985	PB87-147781
Oil Imports into the United States and Puerto Rico, Annual -- 1986-1987	PB88-207485
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1988)	PB88-207493

To order, contact:

National Technical Information Service (NTIS)
Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Stephen Patterson	(202) 586-5994
Supply and Disposition	Stephen Patterson	(202) 586-5994
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Nancy Masterson	(202) 586-8393
Imports	Claudette Graham	(202) 586-9649
Exports	T. C. Swann	(202) 586-1155
Stocks	Beverly Harris	(202) 586-5130
Transportation	Chris Gray	(202) 586-8995

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Contents

	Page
Highlights	xi
Petroleum Focus	
Petroleum Supply Summary	xvii
Tables	
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview	2
S2. Crude Oil Supply and Disposition	6
S3. Crude Oil and Petroleum Product Imports	8
S4. Finished Motor Gasoline Supply and Disposition	11
S5. Distillate Fuel Oil Supply and Disposition	13
S6. Residual Fuel Oil Supply and Disposition	15
S7. Liquefied Petroleum Gases Supply and Disposition	17
S8. Other Petroleum Products Supply and Disposition	18
Sources of Summary Statistics	19
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I	28
7. PAD District II	29
8. PAD District III	30
9. PAD District IV	31
10. PAD District V	32
Production of Crude Oil	
11. Production of Crude Oil (Including Lease Condensate) by PAD District and State	33
Natural Gas Processing	
12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District	34
Refinery Operations	
13. Refinery Input of Crude Oil and Petroleum Products by PAD District	35
14. Refinery Production of Petroleum Products by PAD District	36
15. Percent Refinery Yield of Petroleum Products by PAD District	37
Imports of Crude Oil and Petroleum Products	
16. Imports of Crude Oil and Petroleum Products by PAD District	38
17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District	39
18. Imports of Crude Oil and Petroleum Products by Source and PAD District	40
19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District	45
Exports of Crude Oil and Petroleum Products	
20. Exports of Crude Oil and Petroleum Products by PAD District	51
21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District	52
22. Exports of Crude Oil and Petroleum Products by Destination	53
23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination	55

	Page
Stocks	
24. Stocks of Crude Oil and Petroleum Products by PAD District	57
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	62
Movements of Crude Oil and Petroleum Products	
26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	63
27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts	64
28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts	64
29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	65
Residual Fuel Oil by Sulfur Content	
30. Production of Residual Fuel Oil by Sulfur Content by PAD District	66
31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District	66
32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content ...	66
33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin	67
34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry	68
Illustrations	
S1. Petroleum Overview	4
S2. Petroleum Products Supplied	4
S3. Crude Oil Supply and Disposition	5
S4. Crude Oil Ending Stocks	5
S5. Finished Motor Gasoline Supply and Disposition	10
S6. Motor Gasoline Ending Stocks	10
S7. Distillate Fuel Oil Supply and Disposition	12
S8. Distillate Fuel Oil Ending Stocks	12
S9. Residual Fuel Oil Supply and Disposition	14
S10. Residual Fuel Oil Ending Stocks	14
S11. Liquefied Petroleum Gases Supply and Disposition	16
S12. Liquefied Petroleum Gases Ending Stocks	16
Appendices	
A. District Descriptions and Maps	71
B. Explanatory Notes	75
C. Impact of Resubmissions on Major Series, 1988	93
Glossary	
Definitions of Petroleum Products and Other Terms	97

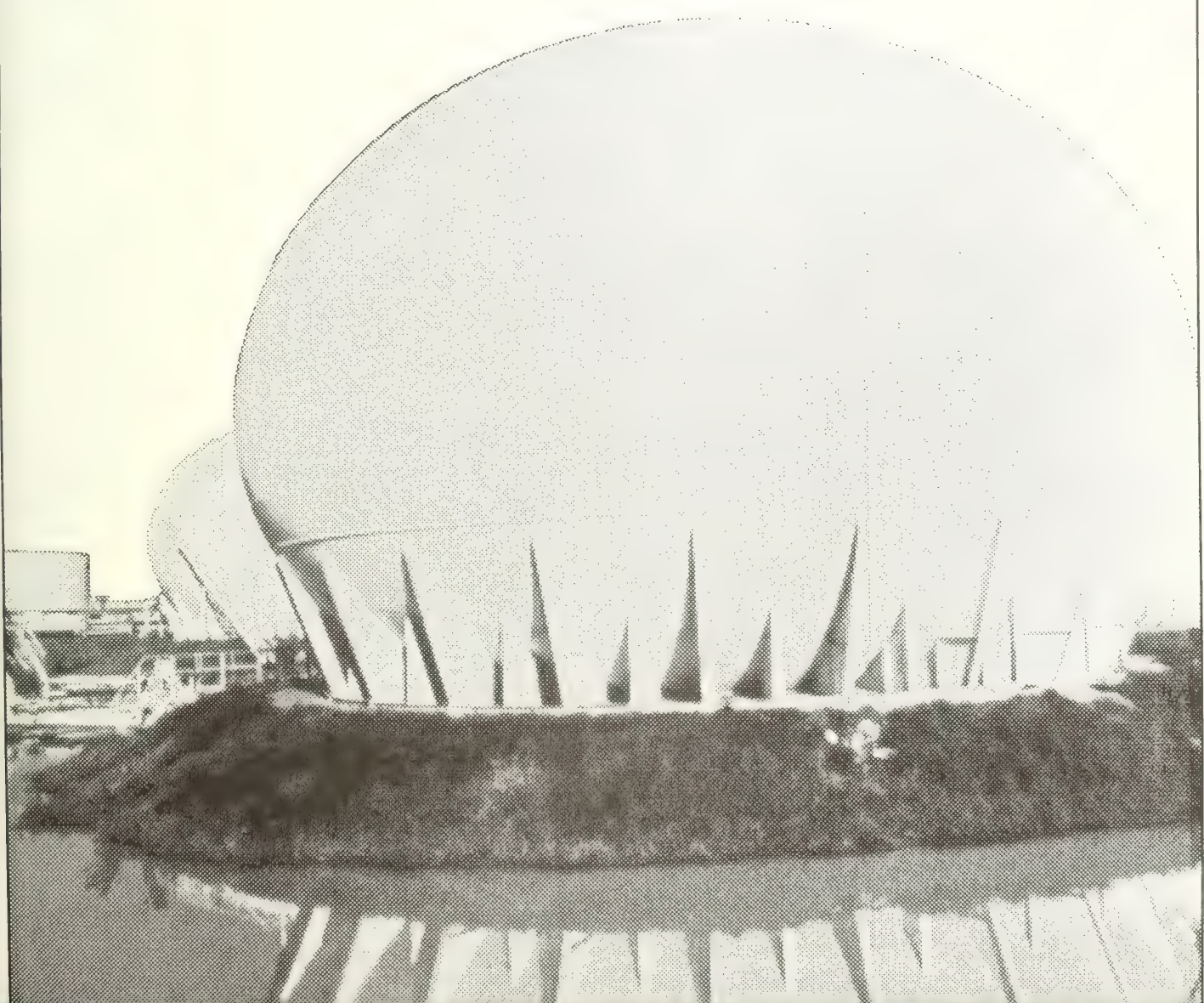
Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1985
Motor Gasoline Outlook for Summer 1985	February 1985
Refinery Capacity Trends and Outlook	March 1985
Mid-Year Petroleum Review	May 1985
Timeliness and Accuracy of Petroleum Supply Data	June 1985
Distillate Fuel Oil Trends	July 1985
World Oil Price and Inventory Cycles	August 1985
Petroleum Storage Technology	August 1985
Comparison of Independent Statistics on Petroleum Supply	September 1985
U.S. Petroleum Developments: 1985	November 1985
Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988
Motor Gasoline Trends Through 1987	February 1988

LIBRARY OF THE UNIVERSITY OF CHICAGO

Highlights



UNIVERSITY OF CHICAGO

Highlights

Total U.S. demand (measured as product supplied) for petroleum products in May 1988 averaged 16.1 million barrels per day. This is over 0.3 million barrels per day below April's average, but is still 0.1 million barrels per day above the May 1987 level. For the most part the disposition of the major products adhered to observed seasonal trends.

Other May highlights include the following:

- Total product stocks increased 32.5 million barrels, from 673.5 at the end of April to 706.0 million barrels at the end of May.
- Refinery utilization jumped to 85.8 percent.

Product Supplied

Residual fuel oil demand continued to follow seasonal patterns in May, decreasing over 0.3 million barrels per day to about 0.9 million barrels per day (Table H1). Compared with

May 1987, the demand for residual fuel oil in May 1988 was 8 percent lower. In the first quarter of 1988, residual demand was nearly 9 percent above the average for the same period in 1987. Greater demand for competitively priced residual fuel oil in the industrial sector was primarily responsible for the large first quarter yearly difference, but softening natural gas prices and seasonal factors have slowed residual demand this month. Residual fuel oil production declined 0.1 million barrels per day in May, while stocks increased by 0.1 million barrels per day. Both changes are in keeping with observed trends for this time of year.

The demand for distillate fuel oil dropped 0.1 million barrels per day below April's rate to 2.8 million barrels per day in May. Compared with May 1987, the demand for distillate fuel oil in May 1988 was 3 percent higher. Much of the 1988 increase in distillate demand from 1987 levels is related to greater consumption of diesel fuel in the transportation sector. Along with the lower distillate demand this month from April's level, higher levels of production and imports contributed to the over 0.3 million barrels daily addition to distillate inventories this month.

Table H1. Production, Imports, Stock Change, and Product Supplied: May Versus April 1988
(Million Barrels per Day)

Product Category	May 1988				April 1988				Difference (May minus April)			
	Production	Imports	Stock Change ¹	Product Supplied	Production	Imports	Stock Change ¹	Product Supplied	Production	Imports	Stock Change ¹	Product Supplied
Motor Gasoline	6.8	0.4	(s)	7.3	6.9	0.3	0.1	7.4	-0.1	0.1	-0.1	-0.1
Distillate Fuel Oil	2.9	0.2	-0.3	2.8	2.9	0.2	-0.2	2.9	0.1	(s)	-0.2	-0.1
Residual Fuel Oil	0.9	0.4	-0.1	0.9	1.0	0.5	(s)	1.3	-0.1	(s)	-0.1	-0.3
Propane	0.9	0.1	-0.2	0.7	0.9	0.1	-0.3	0.6	(s)	(s)	(s)	(s)
Asphalt/Road Oil	0.5	(s)	(s)	0.5	0.4	(s)	-0.1	0.4	0.1	(s)	0.1	0.2
Total Products	16.5	2.0	-1.0	16.1	16.5	1.9	-0.5	16.4	(s)	0.1	-0.6	-0.3

¹ A positive number indicates a stock decrease and a negative number indicates a stock increase.

² Less than 50,000 barrels per day.

Note: Components may not add due to independent rounding.

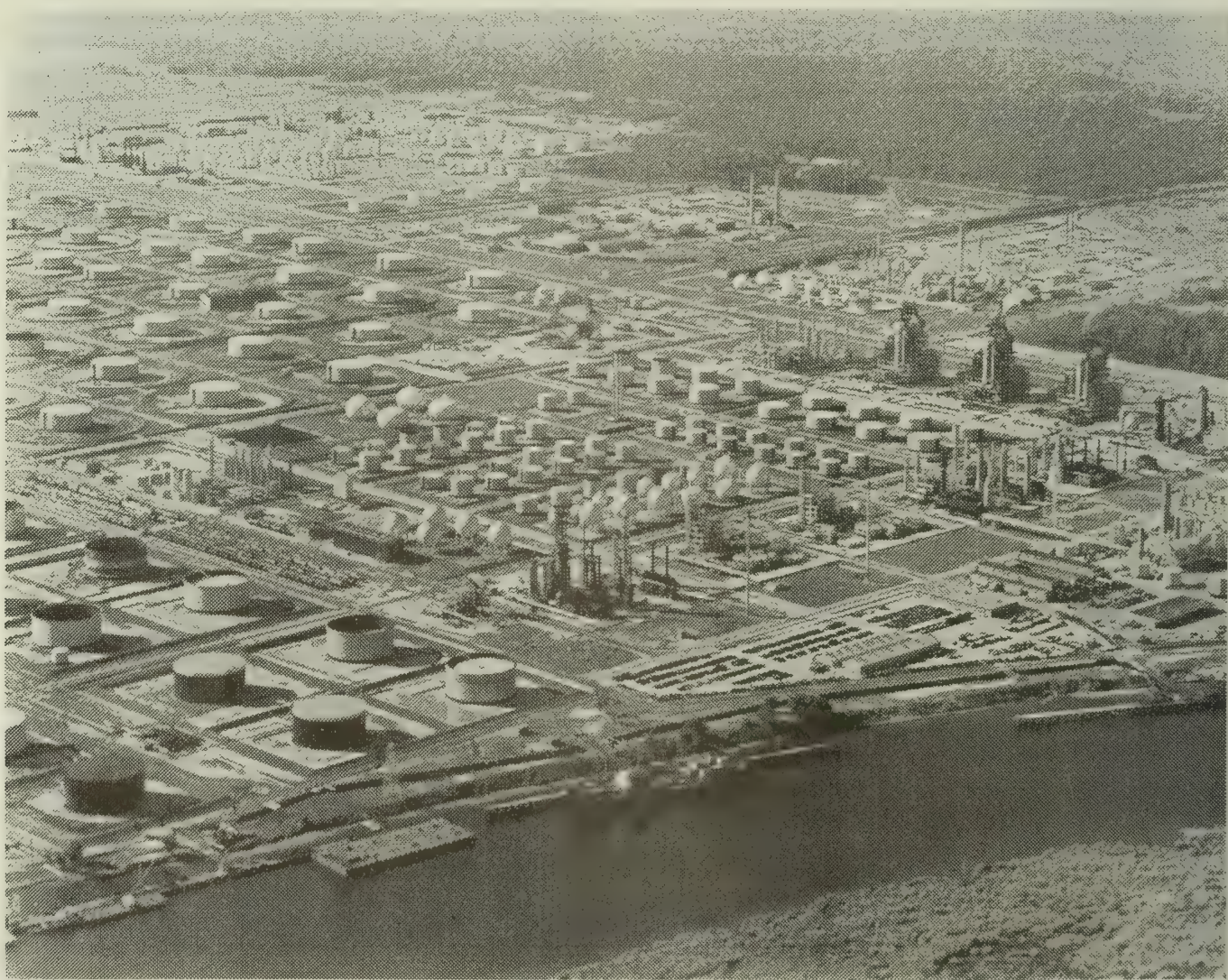
Motor gasoline demand in May averaged 7.3 million barrels per day, down about 0.1 million barrels per day from the April 1988 average and nearly 3 percent below the average for May 1987. The difference in demand between May 1988 and May 1987 appears to reflect more the unusually strong gasoline market last May rather than a weak market this month. Stocks of motor gasoline declined slightly in May, and production decreased 0.1 million barrels per day. However, this production decrease was offset by an increase in imports of 0.1 million barrels per day.

A seasonal increase in road construction activity in May pushed the demand for asphalt and road oil up 0.2 million barrels per day from April's average. An increase in production of 0.1 million barrels per day and a swing in stock activity (the difference between stock change in May versus April) of 0.1 million barrels per month helped meet the increased demand. Demand for asphalt and road oil averaged over 0.5 million barrels per day in May.

Product Stocks Increase

Total end-of-month stocks of petroleum products increased 32.5 million barrels in May to 706.0 million barrels. The largest increases were in the distillate, unfinished oils, and propane categories. The combined stock increase for these three products accounted for 82 percent of the total rise in product stocks.

Stocks of distillate, which in March were at their lowest level in over 20 years, continued to be replenished in May. From 94.3 million barrels at the end of April, distillate stocks jumped 10.2 million barrels to a volume of 104.5 million barrels at the end of May. Unfinished oils stocks rose 9.2 million barrels in May primarily because of a sharp 44 percent drop in net refinery inputs of unfinished oils during the month. Unfinished oils stocks stood at 112.1 million barrels at the end of May. Inventories of propane, which grew 8.3 million



Stocks of unfinished oils held at refinery storage facilities, like the one pictured here, increased 9.2 million barrels in May. Unfinished oils stocks finished May at 112.1 million barrels.

barrels in April, increased another 7.4 million barrels in May, ending the month at 44.9 million barrels. Seasonal factors are largely responsible for these increases.

Refinery Utilization Up

The refinery utilization rate rose in May for the third consecutive month. From a rate of 84.0 percent in April, utilization increased to 85.8 percent in May, the highest level since August of 1987. Most of the increase in the utilization rate resulted from an increase of 0.3 million barrels per day in

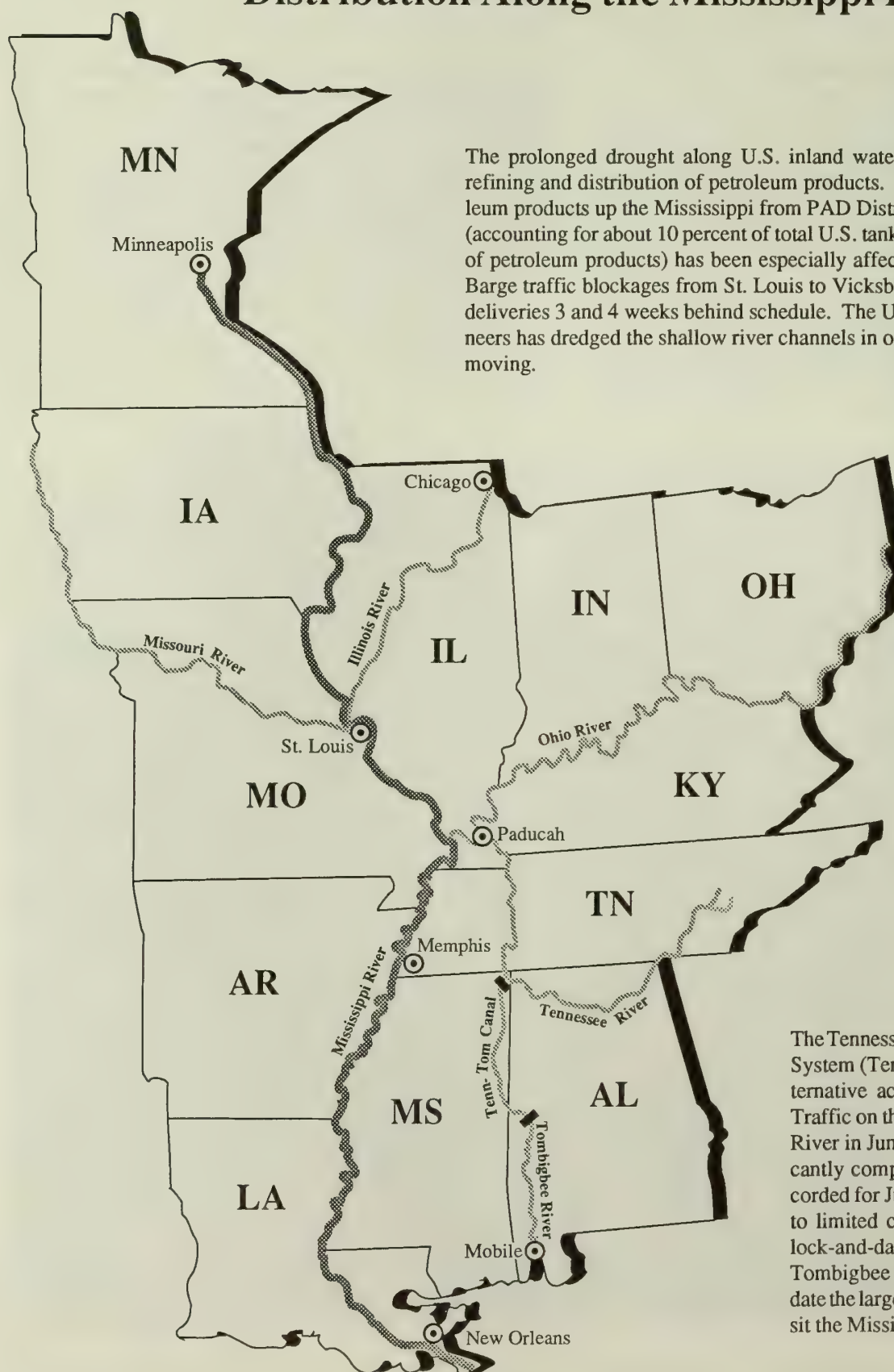
gross refinery inputs in May. Gross inputs to crude oil distillation units this month averaged 13.6 million barrels per day, while operable capacity stayed at 15.9 million barrels per day.

Downstream activity also increased this month, although the blast and fire that destroyed the catalytic cracking unit at Shell's Norco, Louisiana refinery and idled most of that complex kept the overall increase lower than it would have been. Total fresh feed inputs to catalytic cracking, catalytic hydrocracking, and coking units averaged just under 6.8 million barrels per day in May, compared to a rate of just over 6.7 million barrels per day in April.



With a seasonal pick-up in road construction and repair, deliveries of asphalt and road oil jumped 0.2 million barrels per day in May to 0.5 million barrels per day. Shown above is a highway paving project in Florida.

Effects of Low Water on Petroleum Refining and Distribution Along the Mississippi River

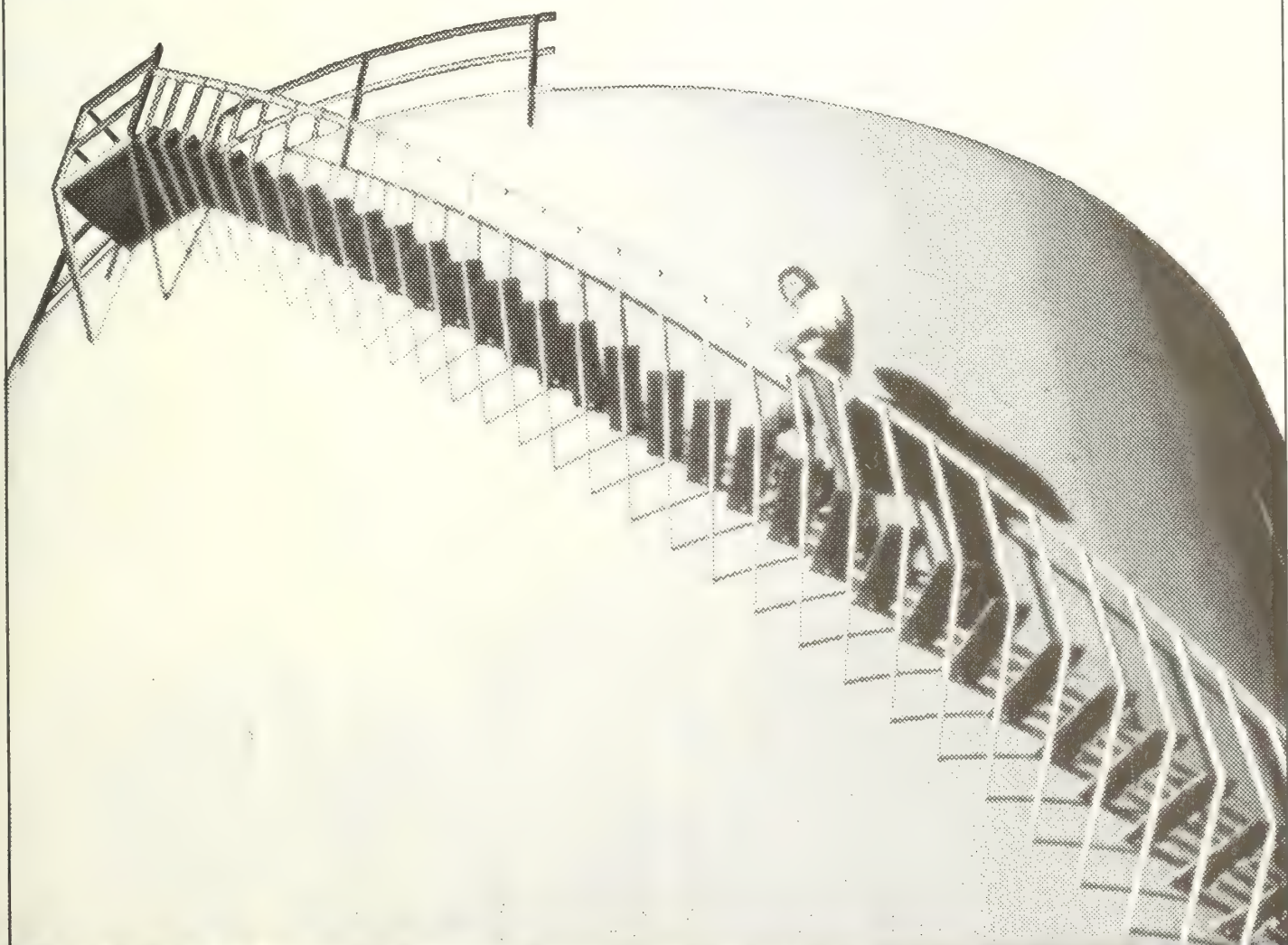


The prolonged drought along U.S. inland waterways has disrupted the refining and distribution of petroleum products. The movement of petroleum products up the Mississippi from PAD District III to PAD District II (accounting for about 10 percent of total U.S. tanker and barge movements of petroleum products) has been especially affected by low water levels. Barge traffic blockages from St. Louis to Vicksburg have pushed product deliveries 3 and 4 weeks behind schedule. The U.S. Army Corps of Engineers has dredged the shallow river channels in order to keep barge traffic moving.

The incursion of salt water up river on the Mississippi has caused a reduction in refining operations. Due to unusually low water levels, refineries along the Mississippi below New Orleans have had to barge up to a million gallons per day of fresh water in order to maintain operations. The high salinity of the water in the lower Mississippi River prevents some refineries from using untreated river water in their boiler feeds and cooling intakes.

The Tennessee-Tombigbee Waterway System (Tenn-Tom) has provided alternative access to the Ohio River. Traffic on the Tennessee-Tombigbee River in June 1988 increased significantly compared with shipments recorded for June 1987. However, due to limited channel capacity and the lock-and-dam system, the Tennessee-Tombigbee River cannot accommodate the large tows which usually transit the Mississippi.

Petroleum Focus



1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

Petroleum Supply Summary (Million Barrels per Day)

	June			Cumulative January Through June		
	1988	1987	% Change	1988	1987	% Change
Products Supplied						
Motor Gasoline	7.6	7.5	0.8	7.2	7.1	1.4
Distillate Fuel Oil	2.7	2.8	-4.0	3.1	3.0	3.6
Residual Fuel Oil	1.0	1.2	-17.1	1.3	1.3	2.2
Other Products	5.3	5.3	.8	5.2	5.1	3.2
Total	16.6	16.8	-1.5	16.9	16.5	2.4
Crude Inputs to Refineries	13.5	13.2	2.2	13.2	12.6	4.8
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	9.9	9.9	-.1	9.9	10.1	-1.2
Imports						
Crude Oil ²	4.9	4.7	3.5	4.9	4.1	17.1
SPR	.1	.1	-3.7	(s)	.1	-33.4
Products	1.7	2.0	-14.2	2.0	1.9	4.7
Total	6.7	6.8	-1.7	6.9	6.1	12.6
Exports						
Crude Oil	.2	.1	47.8	.2	.2	8.2
Products	.6	.6	7.3	.6	.6	5.4
Total	.8	.7	14.3	.8	.8	6.0
Stock Withdrawal						
Crude Oil ²	(s)	-.1	-	(s)	(s)	-
Products	-.4	(s)	-	(s)	.3	-
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	550	527	4.3	-	-	-
Other	363	328	10.9	-	-	-
Total	913	855	6.8	-	-	-
Products						
Motor Gasoline ³	211	230	-8.6	-	-	-
Distillate Fuel Oil	112	104	7.5	-	-	-
Residual Fuel Oil	43	41	4.4	-	-	-
Other	332	317	4.7	-	-	-
Total	698	693	.6	-	-	-
Total Crude Oil and Products	1,611	1,548	4.1	-	-	-

¹ Includes alcohol and other hydrocarbon liquids.

² Excludes Strategic Petroleum Reserve (SPR).

³ Including blending components.

(s) = Less than 0.05 million barrels per day/or less than 0.05 percent.

Note: Percent changes are based on unrounded values. June 1988 data are estimates based on weekly data. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, May 1988.

1891-1892

Summary Statistics

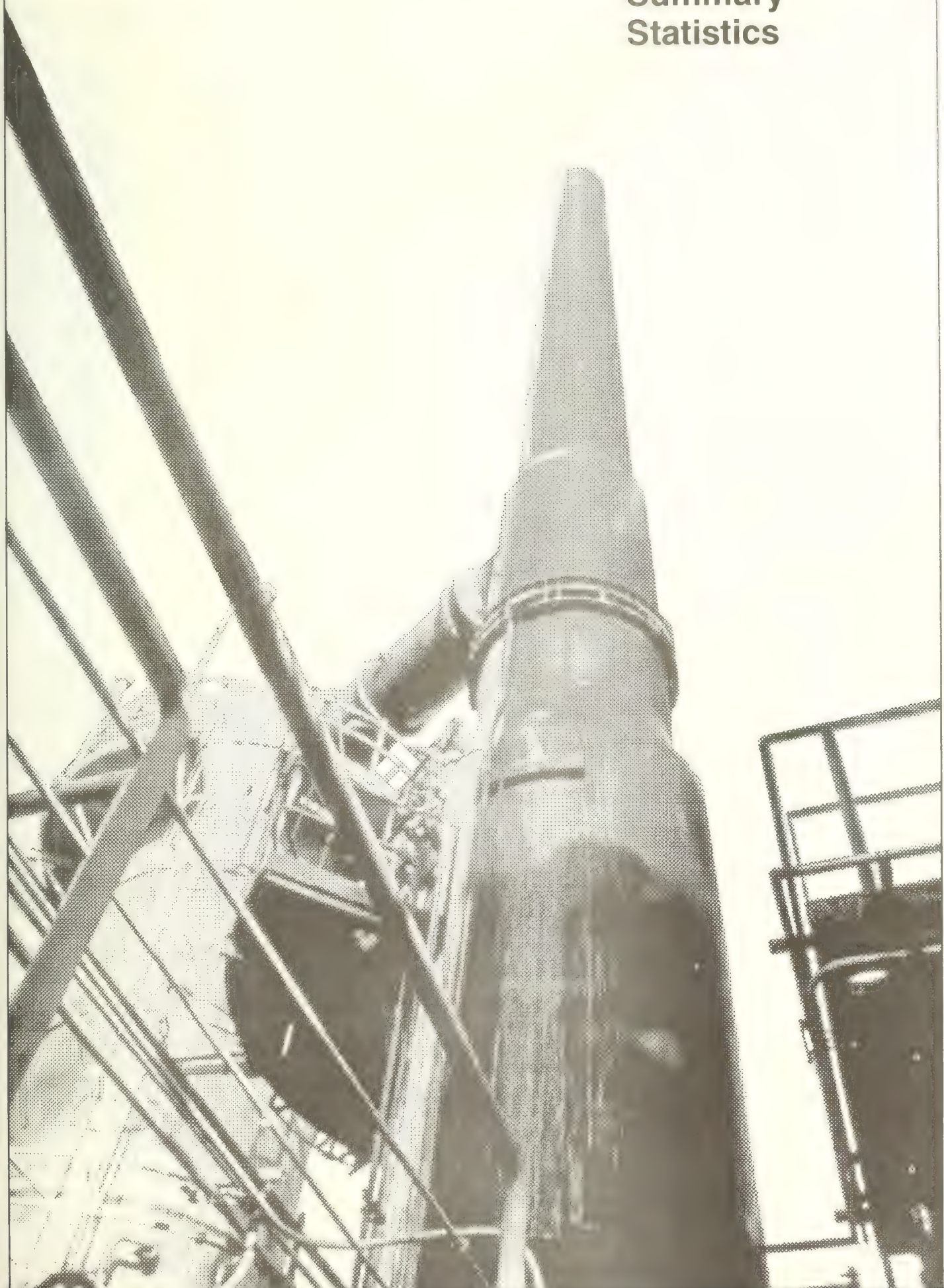


Table S1. Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Liquids	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
								Thousand Barrels per Day
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	^B 1,074
1975	Average	10,045	8,375	1,633	^B -17	^B -15	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	^B 1,392
1981	Average	10,230	8,572	1,609	^B -290	^B 130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	^B 1,430
1983	Average	10,299	8,688	1,559	^B -214	^B 234	15,231	1,454
1984	Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985	Average	10,636	8,971	1,609	-50	153	15,726	1,519
1986	January	10,911	9,137	1,711	-383	-151	16,088	1,535
	February	10,916	9,173	1,696	-37	804	16,186	1,514
	March	10,664	9,013	1,604	-345	1,160	16,276	1,489
	April	10,435	8,864	1,523	41	262	15,945	1,479
	May	10,440	8,838	1,543	260	-1,109	15,993	1,506
	June	10,187	8,623	1,504	3	-1,238	16,049	1,543
	July	10,225	8,660	1,507	-541	-422	16,307	1,573
	August	9,875	8,374	1,445	242	-551	16,618	1,582
	September	9,852	8,328	1,468	-217	-973	15,909	1,618
	October	9,954	8,419	1,477	-233	476	16,602	1,610
	November	10,061	8,412	1,569	95	-147	16,221	1,612
	December	9,985	8,352	1,571	186	443	17,131	1,593
	Average	10,289	8,680	1,551	-78	-124	16,281	--
1987	January	10,139	8,480	1,582	-166	376	16,684	1,586
	February	10,073	8,389	1,618	-22	831	16,908	1,563
	March	10,131	8,464	1,598	-125	340	16,165	1,557
	April	10,139	8,498	1,590	50	532	16,524	1,539
	May	9,977	8,336	1,585	36	-116	16,026	1,542
	June	9,906	8,279	1,578	-165	-42	16,830	1,548
	July	9,895	8,251	1,582	33	-372	17,113	1,558
	August	9,843	8,210	1,571	-345	-737	16,346	1,592
	September	9,851	8,205	1,582	-220	-236	16,670	1,606
	October	10,037	8,364	1,602	-661	523	16,941	1,610
	November	10,112	8,397	1,637	-355	-478	16,343	1,635
	December	10,001	8,318	1,621	405	482	17,445	1,607
	Average	10,008	8,349	1,595	-128	87	16,665	--
1988	January	^E 9,874	^E 8,245	1,569	56	285	17,224	1,597
	February	^E 10,016	^E 8,376	1,594	-130	895	17,584	1,575
	March	^E 10,044	^E 8,347	1,628	-212	748	17,530	1,559
	April	^E 9,935	^E 8,268	1,609	-194	-450	16,440	1,578
	May [*]	^{RE} 9,881	^{RE} 8,203	^R 1,624	^R -41	^R -1,049	^R 16,117	^R 1,612
	June ^{**}	^{PE} 9,893	^{PE} 8,210	^E 1,619	^E -63	^E -384	^E 16,582	^E 1,611
	6-Mo. Average	^{PE} 9,940	^{PE} 8,274	^E 1,607	^E -97	^E 2	^E 16,910	--
1987	6-Mo. Average	10,061	8,408	1,592	-66	312	16,515	--
1986	6-Mo. Average	10,590	8,940	1,596	-79	-55	16,089	--

¹ Includes lease condensate.² A negative number indicates an increase in stocks and a positive number indicates a decrease.³ Stocks are totals as of end of period.⁴ Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.⁵ Includes stocks located in the Strategic Petroleum Reserve.⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.⁷ Net Imports equal Imports minus Exports.⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil¹ and Petroleum Products Overview (Continued)

		Imports			Exports			Net ⁷ Imports
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	Average	5,437	3,426	2,011	722	181	541	4,715
1985	Average	5,067	3,201	1,866	781	204	577	4,286
1986	January	5,573	3,472	2,101	859	159	700	4,714
	February	4,676	2,968	1,709	876	162	715	3,800
	March	4,712	2,988	1,724	732	212	520	3,980
	April	5,439	3,684	1,755	850	94	756	4,589
	May	6,400	4,250	2,150	724	98	625	5,676
	June	6,848	4,635	2,213	642	240	401	6,206
	July	6,942	4,726	2,216	685	65	620	6,256
	August	7,168	4,859	2,309	868	233	635	6,300
	September	7,090	5,031	2,059	714	161	553	6,375
	October	6,427	4,419	2,008	831	151	680	5,597
	November	6,592	4,615	1,977	821	115	706	5,771
	December	6,700	4,412	2,288	820	159	661	5,881
	Average	6,224	4,178	2,045	785	154	631	5,439
1987	January	6,353	4,385	1,968	703	84	619	5,650
	February	5,984	3,866	2,118	977	284	694	5,007
	March	5,794	3,779	2,015	720	150	570	5,074
	April	5,911	4,132	1,779	870	247	624	5,041
	May	6,073	4,340	1,732	666	69	597	5,407
	June	6,769	4,807	1,962	669	116	554	6,099
	July	7,588	5,295	2,293	680	149	531	6,908
	August	7,454	5,510	1,944	664	141	523	6,790
	September	7,178	5,110	2,068	795	116	680	6,382
	October	7,068	5,142	1,926	646	84	562	6,422
	November	7,068	5,013	2,055	737	164	573	6,331
	December	6,833	4,640	2,194	1,057	220	838	5,776
	Average	6,678	4,674	2,004	764	151	613	5,914
1988	January	6,900	4,619	2,281	891	212	679	6,009
	February	6,995	4,692	2,303	867	149	718	6,128
	March	6,727	4,788	1,938	839	218	622	5,888
	April	7,050	5,126	1,924	678	117	562	6,371
	May*	^R 7,218	^R 5,234	^R 1,983	^R 817	^R 141	^R 676	^R 6,401
	June**	^E 6,655	^E 4,973	^E 1,683	^E 765	^E 171	^E 594	^E 5,890
	6-Mo. Average	^E 6,924	^E 4,906	^E 2,018	^E 810	^E 168	^E 641	^E 6,114
1987	6-Mo. Average	6,148	4,221	1,927	764	156	608	5,384
1986	6-Mo. Average	5,618	3,672	1,945	779	161	618	4,839

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 9.1.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

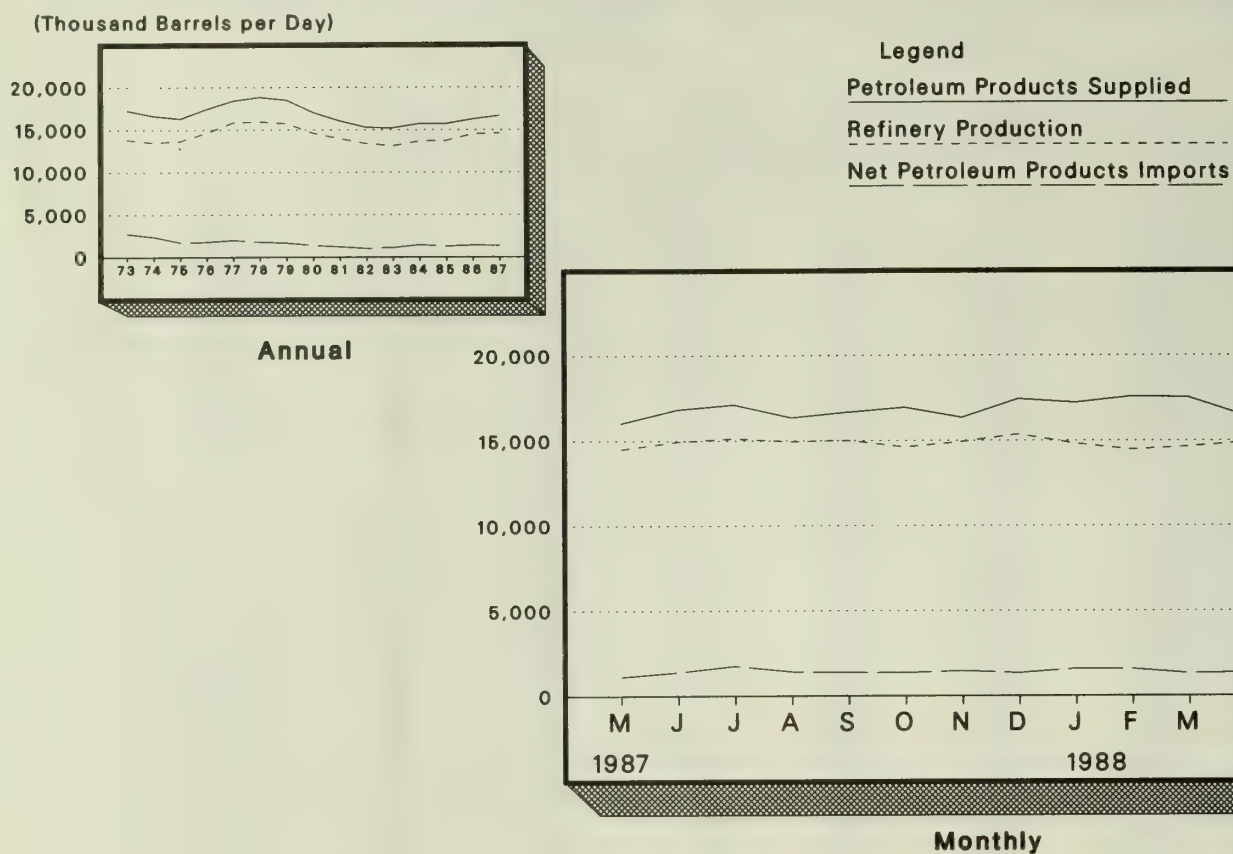


Figure S2. Petroleum Products Supplied

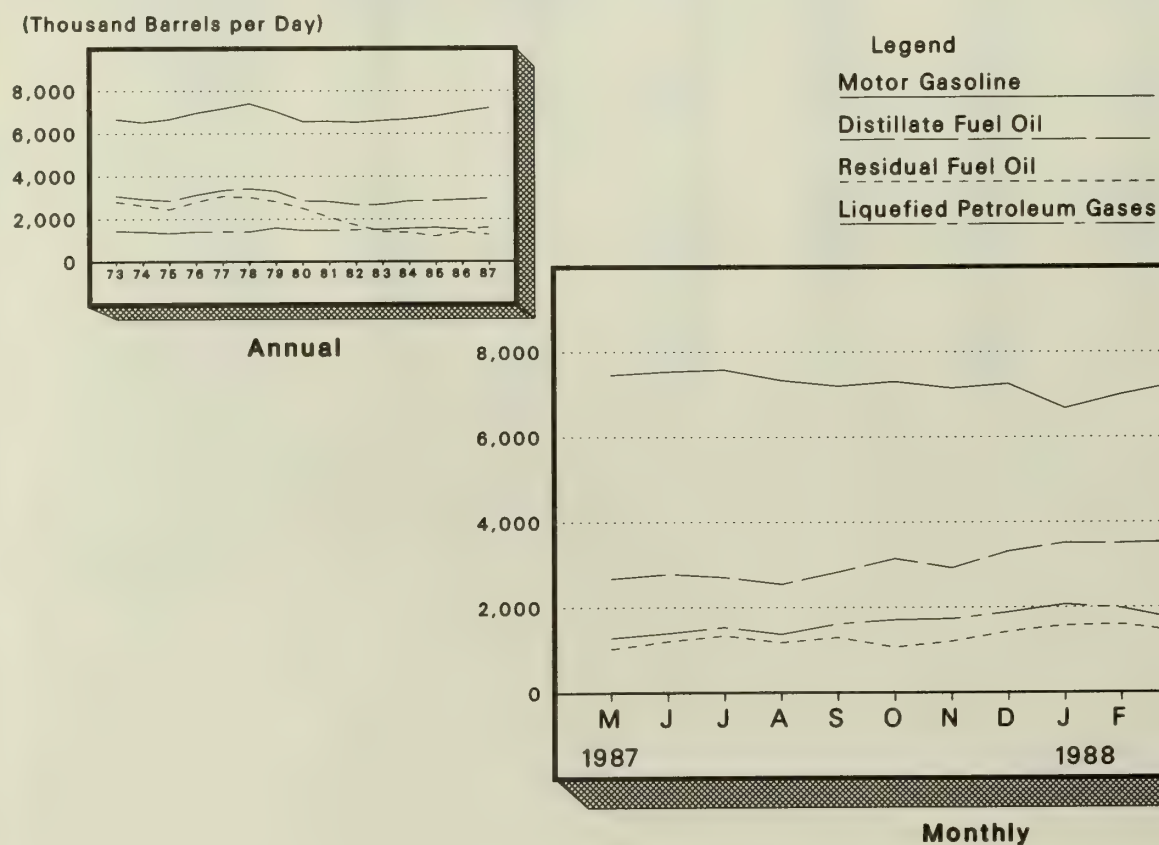
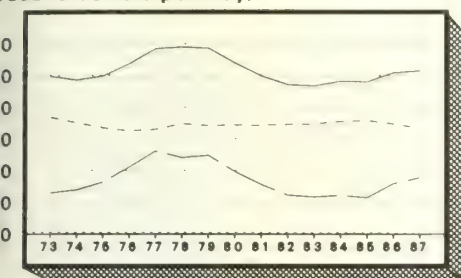


Figure S3. Crude Oil Supply and Disposition

(Thousand Barrels per Day)



Annual

15,000

12,500

10,000

7,500

5,000

2,500

0

M 1987

J

J

A

S

O

N

D

J

F

M

A

M

J

1988

Monthly

Legend

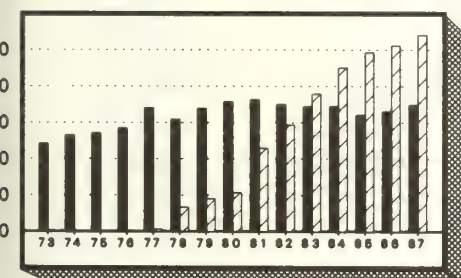
Refinery Inputs

Domestic Crude Oil Production

Net Imports (excludes SPR)

Figure S4. Crude Oil Ending Stocks

(Million Barrels)



Annual

500

400

300

200

100

0

M 1987

J

J

A

S

O

N

D

J

F

M

A

M

J

1988

Monthly

Legend

Other Primary

SPR

Average Stock Range (See Explanatory Note 6.)

Table S2. Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil ⁵
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
Thousand Barrels per Day									
1973	Average	9,208	198	3,244	—	3,244	—	11	3
1974	Average	8,774	193	3,477	—	3,477	—	-62	-25
1975	Average	8,375	191	4,105	—	4,105	—	-17	17
1976	Average	8,132	173	5,287	—	5,287	—	-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	7 46	83
1982	Average	8,649	1,695	3,488	165	3,323	-174	38	71
1983	Average	8,688	1,714	3,329	234	3,096	-234	7 20	114
1984	Average	8,879	1,722	3,426	197	3,229	-195	-4	185
1985	Average	8,971	1,825	3,201	118	3,083	-117	67	145
1986	January	9,137	1,870	3,472	51	3,420	-35	-348	364
	February	9,173	1,907	2,968	24	2,944	-35	-2	32
	March	9,013	1,860	2,988	59	2,929	-49	-296	259
	April	8,864	1,836	3,684	63	3,621	-63	104	70
	May	8,838	1,927	4,250	36	4,215	-35	295	79
	June	8,623	1,887	4,635	64	4,571	-64	66	292
	July	8,660	1,903	4,726	52	4,674	-52	-489	189
	August	8,374	1,811	4,859	51	4,809	-51	293	93
	September	8,328	1,782	5,031	47	4,984	-47	-170	161
	October	8,419	1,927	4,419	37	4,382	-36	-197	223
	November	8,412	1,883	4,615	45	4,570	-65	160	-136
	December	8,352	1,807	4,412	48	4,365	-68	254	28
	Average	8,680	1,867	4,178	48	4,130	-50	-28	139
1987	January	8,480	2,019	4,385	92	4,293	-108	-58	-5
	February	8,389	1,853	3,866	44	3,822	-64	42	382
	March	8,464	1,968	3,779	95	3,684	-106	-19	151
	April	8,498	1,990	4,132	57	4,076	-67	116	120
	May	8,336	1,979	4,340	92	4,248	-101	137	51
	June	8,279	1,930	4,807	64	4,743	-69	-97	434
	July	8,251	1,910	5,295	76	5,218	-91	124	32
	August	8,210	1,908	5,510	63	5,447	-63	-281	177
	September	8,205	1,874	5,110	64	5,047	-64	-157	217
	October	8,364	1,986	5,142	57	5,085	-57	-604	-3
	November	8,397	2,068	5,013	97	4,916	-97	-258	115
	December	8,318	2,043	4,640	68	4,572	-68	472	101
	Average	8,349	1,962	4,674	73	4,601	-80	-49	145
1988	January	E 8,245	E 1,999	4,619	67	4,552	-67	123	303
	February	E 8,376	E 2,070	4,692	49	4,643	-49	-81	-21
	March	E 8,347	E 2,086	4,788	23	4,766	-26	-187	419
	April	E 8,268	E 2,029	5,126	78	5,049	-77	-117	126
	May*	RE 8,203	RE 2,016	R 5,234	R 22	R 5,213	R -22	R -19	R 251
	June**	PE 8,210	PE 2,053	E 4,973	E 61	E 4,911	E -62	E -1	E 591
	6-Mo. Average	PE 8,274	PE 2,042	E 4,906	E 50	E 4,856	E -50	E -46	E 281
1987	6-Mo. Average	8,408	1,958	4,221	75	4,147	-86	20	185
1986	6-Mo. Average	8,940	1,881	3,672	50	3,623	-47	-32	185

Table S2. Crude Oil¹ Supply and Disposition (Continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ⁶	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁶	Total	SPR ⁴	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	Average	-19	13	12,431	2	--	242	--	242
1974	Average	-15	13	12,133	3	--	265	--	265
1975	Average	-17	13	12,442	6	--	271	--	271
1976	Average	-18	15	13,416	8	--	285	--	285
1977	Average	-14	16	14,602	50	--	348	7	340
1978	Average	-14	16	14,739	158	--	376	67	309
1979	Average	-13	16	14,648	235	--	430	91	339
1980	Average	-13	15	13,481	287	--	7 466	108	7 358
1981	Average	-58	5	12,470	228	--	594	230	363
1982	Average	-59	3	11,774	236	--	7 644	294	7 350
1983	Average	--	2	11,685	164	66	723	379	344
1984	Average	--	2	12,044	181	64	796	451	345
1985	Average	--	1	12,002	204	60	814	493	321
1986	January	--	1	12,374	159	57	826	494	332
	February	--	(s)	11,918	162	56	827	495	332
	March	--	(s)	11,652	212	52	838	497	341
	April	--	(s)	12,512	94	51	837	499	338
	May	--	(s)	13,279	98	49	829	500	329
	June	--	(s)	13,261	240	52	828	502	327
	July	--	(s)	12,917	65	51	845	503	342
	August	--	(s)	13,287	233	48	838	505	333
	September	--	(s)	13,097	161	45	844	506	338
	October	--	(s)	12,636	151	41	851	508	344
	November	--	(s)	12,831	115	41	849	509	339
	December	--	(s)	12,777	159	42	843	512	331
	Average	--	(s)	12,716	154	49	--	--	--
1987	January	--	1	12,570	84	41	848	515	333
	February	--	(s)	12,290	284	41	849	517	332
	March	--	1	12,081	150	39	852	520	332
	April	--	(s)	12,512	247	41	851	522	329
	May	--	(s)	12,653	69	42	850	525	325
	June	--	(s)	13,202	116	36	855	527	328
	July	--	(s)	13,430	149	32	854	530	324
	August	--	(s)	13,380	141	31	864	532	332
	September	--	(s)	13,168	116	28	871	534	337
	October	--	(s)	12,733	84	25	892	536	356
	November	--	(s)	12,981	164	25	902	539	364
	December	--	(s)	13,212	220	31	890	541	349
	Average	--	(s)	12,854	151	34	--	--	--
1988	January	--	(s)	12,975	212	36	888	543	345
	February	--	(s)	12,715	149	52	892	544	348
	March	--	(s)	13,072	218	52	899	545	354
	April	--	(s)	13,167	117	42	904	547	357
	May*	--	(s)	R 13,472	R 141	R 34	R 906	548	R 358
	June**	--	E (s)	E 13,493	E 171	E 47	E 913	E 550	E 363
	6-Mo. Average	--	E (s)	E 13,152	E 168	E 44	--	--	--
1987	6-Mo. Average	--	(s)	12,552	156	40	--	--	--
1986	6-Mo. Average	--	(s)	12,505	161	53	--	--	--

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹										
		Algeria	Libya	Saudi Arabia ²	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ³	Total OPEC ⁴	Total Arab OPEC ⁵
Thousand Barrels per Day												
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	Average	187	4	168	45	314	27	293	605	187	1,830	472
1986	January	215	0	664	11	290	0	278	629	210	2,298	976
	February	157	0	574	0	290	(s)	204	518	64	1,807	757
	March	260	0	482	0	161	0	328	797	117	2,145	798
	April	275	0	698	21	292	0	319	831	139	2,576	1,058
	May	193	0	574	40	314	40	398	899	290	2,749	966
	June	319	0	662	83	353	0	382	772	439	3,010	1,377
	July	310	0	738	59	532	66	542	730	330	3,307	1,357
	August	363	0	680	37	274	93	606	916	378	3,346	1,339
	September	245	0	810	62	341	31	684	856	356	3,383	1,388
	October	305	0	697	147	388	0	530	863	346	3,276	1,387
	November	311	0	868	34	335	0	483	843	214	3,088	1,295
	December	291	0	769	30	251	0	511	841	284	2,976	1,223
	Average	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	January	156	0	875	15	254	0	346	899	218	2,764	1,184
	February	307	0	776	54	418	30	256	791	155	2,785	1,222
	March	334	0	430	0	317	73	312	702	135	2,305	843
	April	323	0	463	62	236	47	512	710	77	2,430	866
	May	196	0	499	26	297	75	550	913	119	2,675	775
	June	247	0	782	45	261	165	546	808	268	3,122	1,275
	July	347	0	756	42	349	237	792	854	157	3,533	1,264
	August	250	0	961	103	312	208	732	831	351	3,748	1,611
	September	378	0	902	146	242	193	615	821	263	3,560	1,640
	October	274	0	1,051	111	305	86	518	829	401	3,576	1,713
	November	395	0	637	97	219	41	607	771	402	3,169	1,477
	December	339	0	876	31	216	23	613	717	220	3,033	1,415
	Average	295	0	751	61	285	98	535	804	231	3,060	1,274
1988	January	312	0	849	61	179	⁶ 1	406	752	540	3,100	1,632
	February	358	0	1,265	79	148	0	501	830	214	3,394	1,883
	March	259	0	934	6	123	0	541	790	352	3,006	1,506
	April	342	0	931	48	166	0	651	812	385	3,335	1,613
	May	320	0	1,034	34	298	0	488	835	354	3,363	1,710
	5-Mo. Average	318	0	1,000	45	183	(s)	517	804	371	3,237	1,666
	1987	5-Mo. Average	262	0	606	31	303	45	397	804	141	2,589
1986	5-Mo. Average	221	0	599	15	269	8	307	739	166	2,323	913

¹ Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

² Prior to January 1988, data on crude oil and petroleum product imports from the Neutral Zone are included in the data for Saudi Arabia. From January 1988 forward, those imports are included in the data for "Other OPEC".

³ "Other OPEC" consists of Ecuador, Gabon, Iraq, Kuwait, Neutral Zone, and Qatar.

⁴ "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members.

⁵ The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Neutral Zone, Qatar, Saudi Arabia, and the United Arab Emirates.

⁶ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources ⁷										Total Imports
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	
Thousand Barrels per Day												
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	January	62	823	681	58	108	333	21	326	862	3,275	5,573
	February	33	690	557	11	85	218	18	309	949	2,870	4,676
	March	18	750	616	27	79	178	25	186	688	2,567	4,712
	April	34	798	694	13	111	188	23	209	793	2,863	5,439
	May	32	881	743	37	130	365	27	237	1,199	3,651	6,400
	June	29	753	884	17	167	569	30	233	1,157	3,838	6,848
	July	44	763	850	25	131	353	29	237	1,202	3,634	6,942
	August	39	801	738	12	133	584	7	214	1,294	3,822	7,168
	September	15	801	615	17	162	437	23	291	1,345	3,706	7,090
	October	38	842	680	26	112	173	21	215	1,043	3,151	6,427
	November	39	960	565	53	129	448	21	179	1,111	3,504	6,592
	December	57	809	746	7	148	351	12	291	1,304	3,724	6,700
	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	49	953	767	40	104	312	29	341	1,205	3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	March	45	989	745	30	89	461	22	180	1,160	3,720	6,727
	April	12	975	674	31	82	581	29	193	1,137	3,714	7,050
	May	17	990	718	38	102	383	20	243	1,345	3,855	7,218
	5-Mo. Average	36	980	721	32	94	410	23	232	1,211	3,740	6,977
1987	5-Mo. Average	46	805	664	22	118	370	24	268	1,118	3,436	6,025
1986	5-Mo. Average	36	790	660	30	103	258	23	253	898	3,050	5,373

Footnotes continued.

⁷ Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

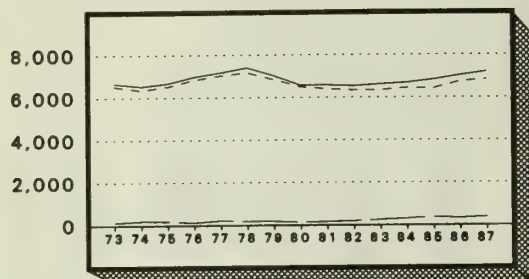
(s) = Less than 500 barrels per day.

Notes: * Beginning in October 1977, Strategic Petroleum Reserve imports are included. * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)



Annual

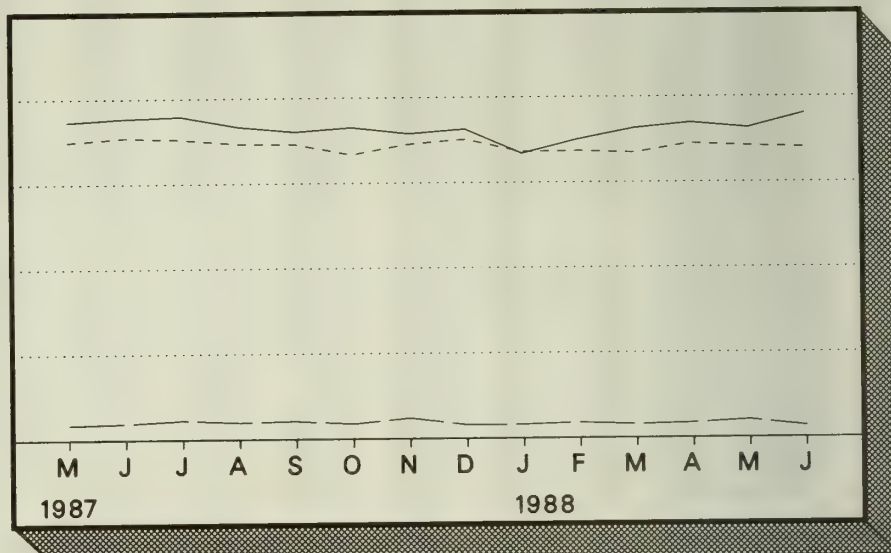
Legend

Products Supplied

Finished Gasoline Production

Finished Gasoline Imports

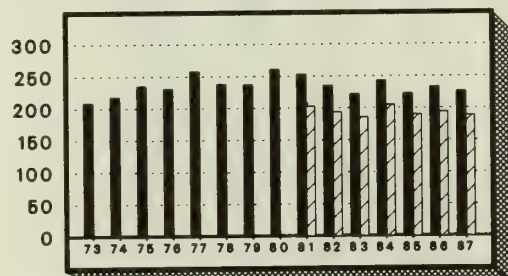
8,000
6,000
4,000
2,000
0



Monthly

Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)



Annual

Legend

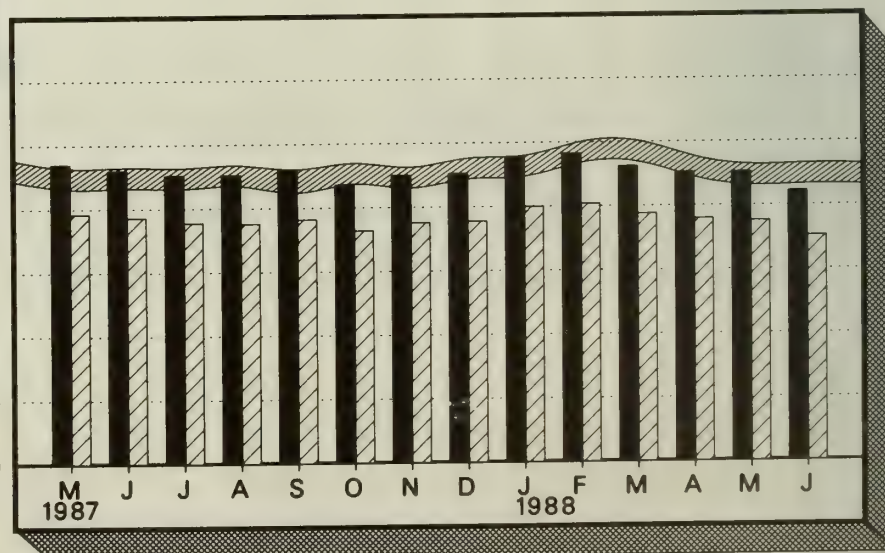
■ Total Motor Gasoline

▨ Finished Motor Gasoline

▤ Average Stock Range (See Explanatory Note 6)

¹ Includes motor gasoline blending components and finished motor gasoline.

300
250
200
150
100
50
0



Monthly

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawal ^{2,3}	Exports	Product Supplied		Total Motor Gasoline ⁵	Finished Motor Gasoline	
						Total ⁴	Unleaded			Unleaded
Thousand Barrels per Day							Percent of Total	Million Barrels		
1973	Average	6,535	134	9	4	6,674	--	--	209	--
1974	Average	6,360	204	-24	2	6,537	--	--	⁶ 218	--
1975	Average	6,520	184	⁶ -28	2	6,675	--	--	235	--
1976	Average	6,841	131	10	3	6,978	--	--	231	--
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	--
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	--
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	25	20	6,539	3,409	52.1	⁶ 235	--
1983	Average	6,340	247	⁶ 45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	-54	6	6,693	3,987	59.6	243	205
1985	Average	6,419	381	41	10	6,831	4,406	64.5	223	190
1986	January	6,522	332	-347	6	6,502	4,404	67.7	238	201
	February	6,302	334	-156	11	6,469	4,365	67.5	244	205
	March	6,061	224	691	21	6,955	4,678	67.3	219	184
	April	6,498	291	338	23	7,105	4,783	67.3	207	174
	May	7,095	471	-450	9	7,106	4,729	66.5	221	188
	June	7,101	392	-265	18	7,209	4,914	68.2	230	196
	July	6,956	337	189	47	7,436	5,182	69.7	224	190
	August	7,092	303	83	43	7,435	5,138	69.1	222	187
	September	6,891	303	-289	40	6,864	4,813	70.1	234	196
	October	6,616	322	372	61	7,250	5,086	70.1	222	184
	November	6,895	280	-200	96	6,879	4,918	71.5	229	190
	December	6,970	320	-122	24	7,143	5,193	72.7	233	194
	Average	6,752	326	-11	33	7,034	4,854	69.0	--	--
1987	January	6,714	393	-528	44	6,535	4,822	73.8	251	211
	February	6,365	309	144	22	6,796	5,068	74.6	250	207
	March	6,569	364	51	20	6,964	5,193	74.6	248	205
	April	6,850	374	133	42	7,314	5,405	73.9	242	201
	May	6,991	354	164	48	7,460	5,569	74.7	235	196
	June	7,089	385	111	46	7,539	5,678	75.3	230	193
	July	7,043	452	119	33	7,581	5,740	75.7	226	189
	August	6,933	396	29	19	7,338	5,656	77.1	226	188
	September	6,921	421	-107	30	7,205	5,536	76.8	230	191
	October	6,668	356	302	21	7,305	5,636	77.1	218	182
	November	6,907	484	-208	32	7,151	5,589	78.2	225	188
	December	7,015	320	-24	59	7,251	5,715	78.8	226	189
	Average	6,841	384	15	35	7,206	5,470	75.9	--	--
1988	January	6,723	324	-361	8	6,679	5,392	80.7	239	200
	February	6,736	365	-78	18	7,004	5,571	79.5	241	202
	March	6,695	318	271	18	7,265	5,845	80.4	231	194
	April	6,906	349	148	18	7,384	5,946	80.5	226	190
	May ^R	6,847	^R 415	^R 34	^R 28	^R 7,269	^R 5,813	^R 80.0	^R 226	^R 188
	June ^E	^E 6,813	^E 271	^E 537	^E 18	^E 7,603	^E 6,160	^E 81.0	^E 211	^E 176
	6-Mo. Average	^E 6,786	^E 340	^E 91	^E 18	^E 7,200	^E 5,788	^E 80.4	--	--
1987	6-Mo. Average	6,767	364	9	37	7,103	5,290	74.5	--	--
1986	6-Mo. Average	6,599	341	-30	15	6,895	4,648	67.4	--	--

¹ Stocks are totals as of end of period.² Beginning in 1981, excludes blending components.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Includes gasohol.⁵ Includes motor gasoline blending components.⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

^{*} See Explanatory Note 9.3.^{**} Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

(Thousand Barrels per Day)

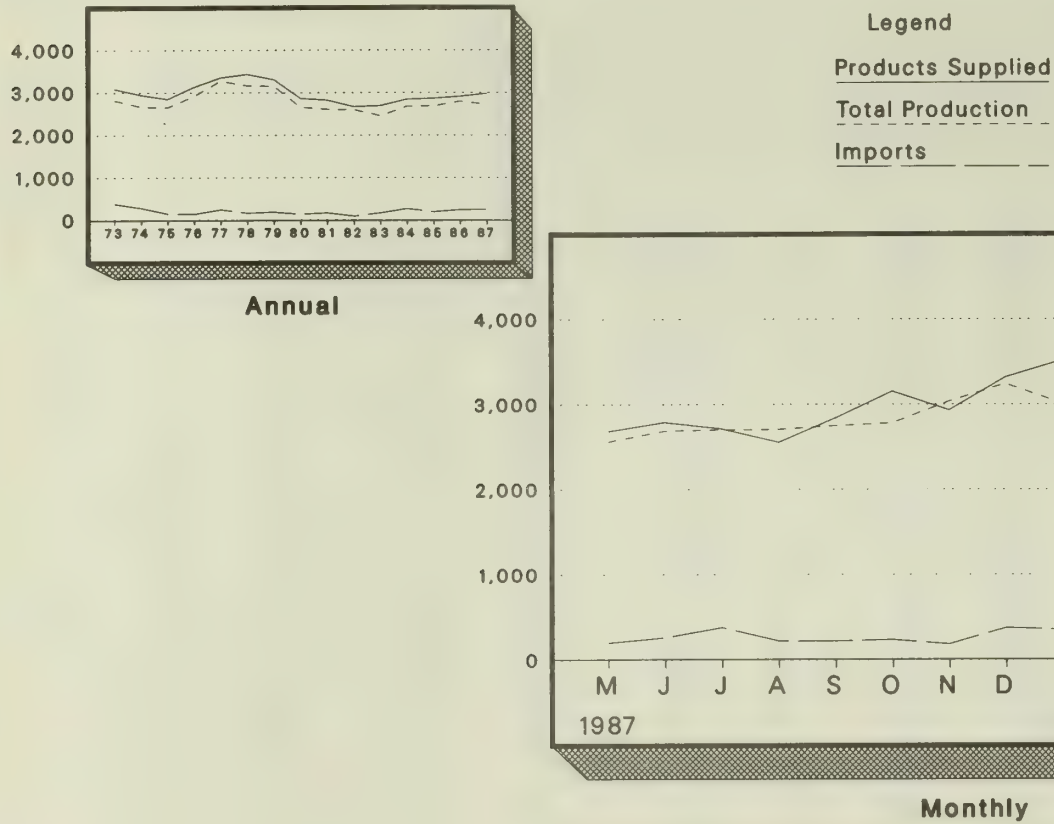


Figure S8. Distillate Fuel Oil Ending Stocks

(Million Barrels)

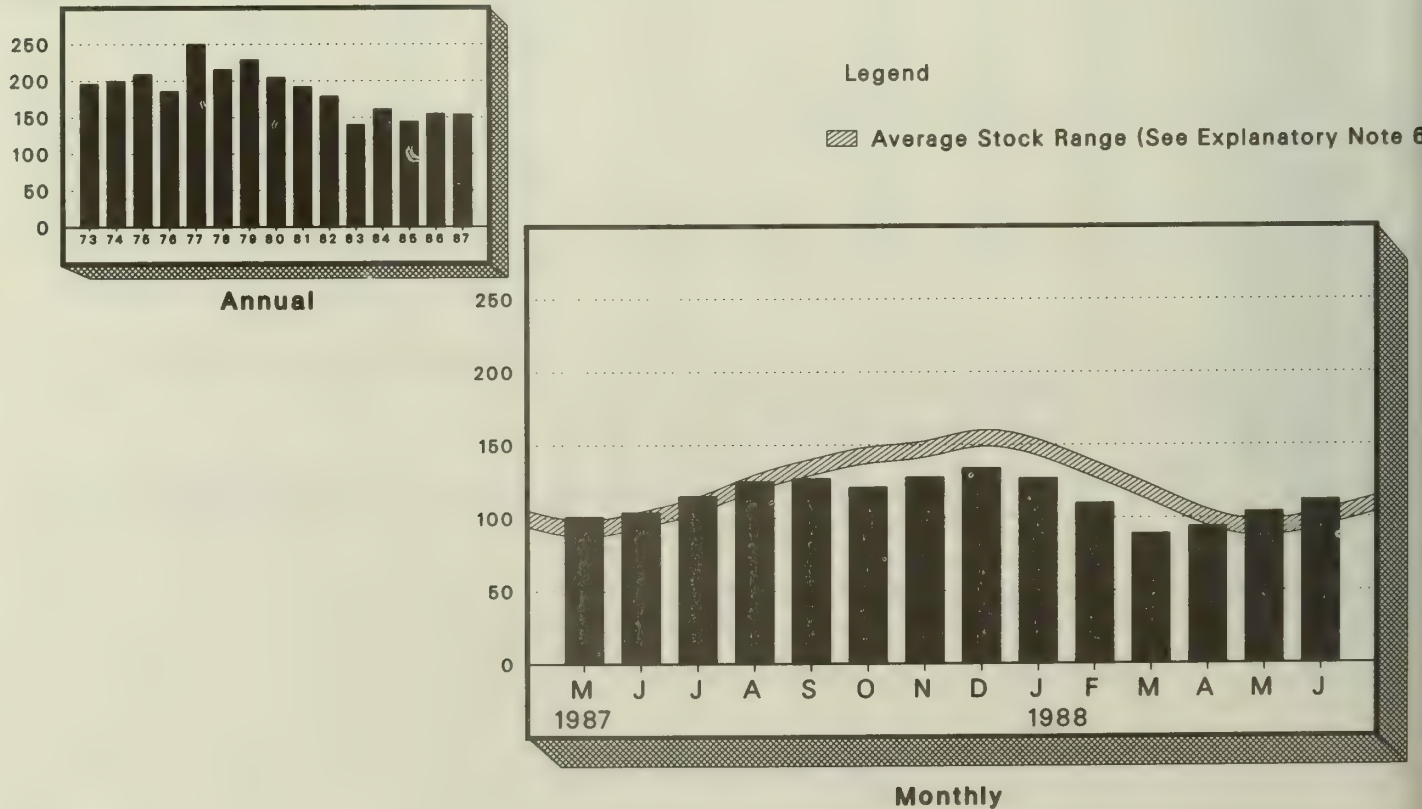


Table S5. Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
		Million Barrels						
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	⁴ 179
1983	Average	2,456	174	⁴ 124	--	64	2,690	140
1984	Average	2,681	272	-57	--	51	2,845	161
1985	Average	2,687	200	48	--	67	2,868	144
1986	January	2,899	325	232	--	126	3,330	136
	February	2,563	169	860	--	176	3,416	112
	March	2,643	217	438	--	131	3,168	99
	April	2,788	147	97	--	128	2,904	96
	May	2,858	149	-95	--	149	2,762	99
	June	2,729	169	-301	--	53	2,544	108
	July	2,710	313	-355	--	75	2,592	119
	August	2,922	370	-607	--	64	2,621	138
	September	2,865	262	-489	--	98	2,540	152
	October	2,717	243	25	--	74	2,912	152
	November	2,917	254	-222	--	72	2,877	158
	December	2,943	339	102	--	55	3,329	155
		Average	2,798	247	-31	--	100	2,914
1987	January	2,759	222	444	--	115	3,310	141
	February	2,556	253	629	--	93	3,345	124
	March	2,421	297	464	--	67	3,116	109
	April	2,553	192	300	--	53	2,991	100
	May	2,563	203	-31	--	51	2,684	101
	June	2,689	265	-104	--	61	2,790	104
	July	2,700	381	-329	--	38	2,713	115
	August	2,706	222	-327	--	47	2,553	125
	September	2,748	222	-68	--	64	2,838	127
	October	2,780	237	187	--	53	3,151	121
	November	3,035	187	-234	--	56	2,932	128
	December	3,242	378	-209	--	92	3,318	134
		Average	2,731	255	56	--	66	2,976
1988	January	3,008	355	236	--	82	3,517	127
	February	2,683	330	604	--	107	3,511	110
	March	2,720	243	656	--	74	3,544	89
	April	2,869	208	-166	--	42	2,870	94
	May*	^R 2,931	^R 228	^R -328	--	^R 74	^R 2,757	^R 104
	June**	^E 2,895	^E 160	^E -317	--	^E 59	^E 2,679	^E 112
	6-Mo. Average	^E 2,853	^E 254	^E 113	--	^E 73	^E 3,146	--
1987	6-Mo. Average	2,590	239	280	--	73	3,036	--
1986	6-Mo. Average	2,750	197	198	--	127	3,017	--

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

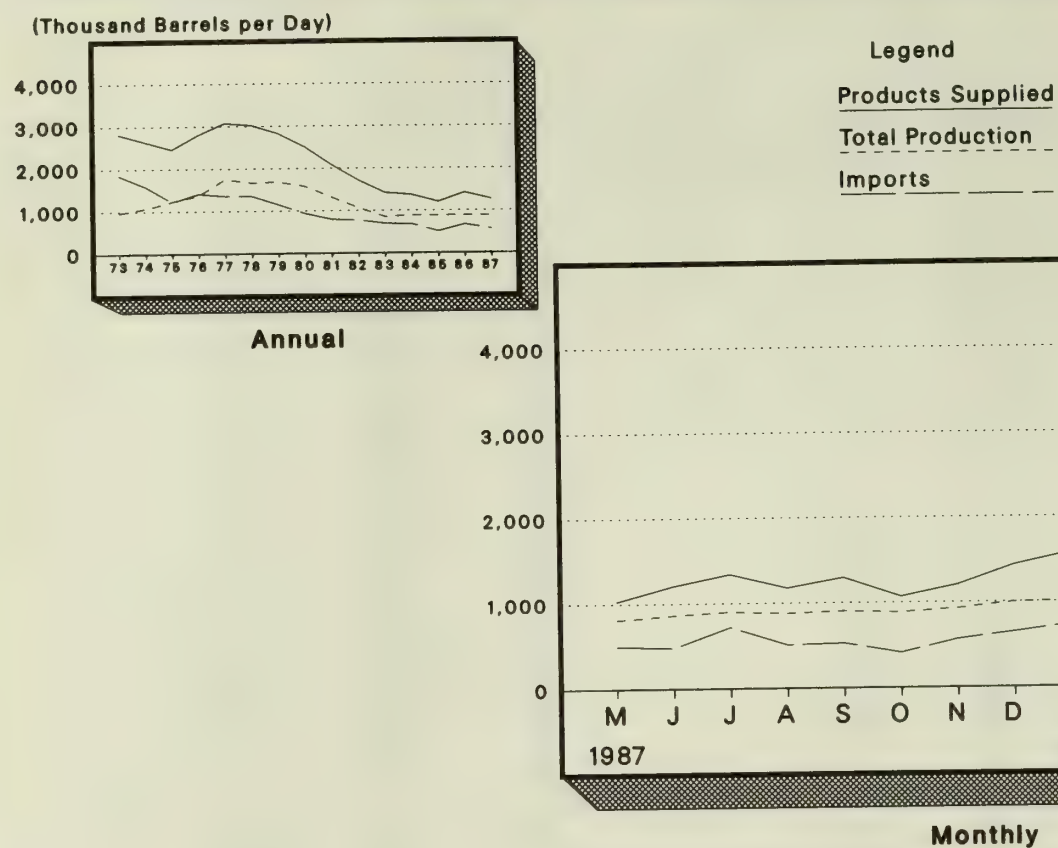


Figure S10. Residual Fuel Oil Ending Stocks

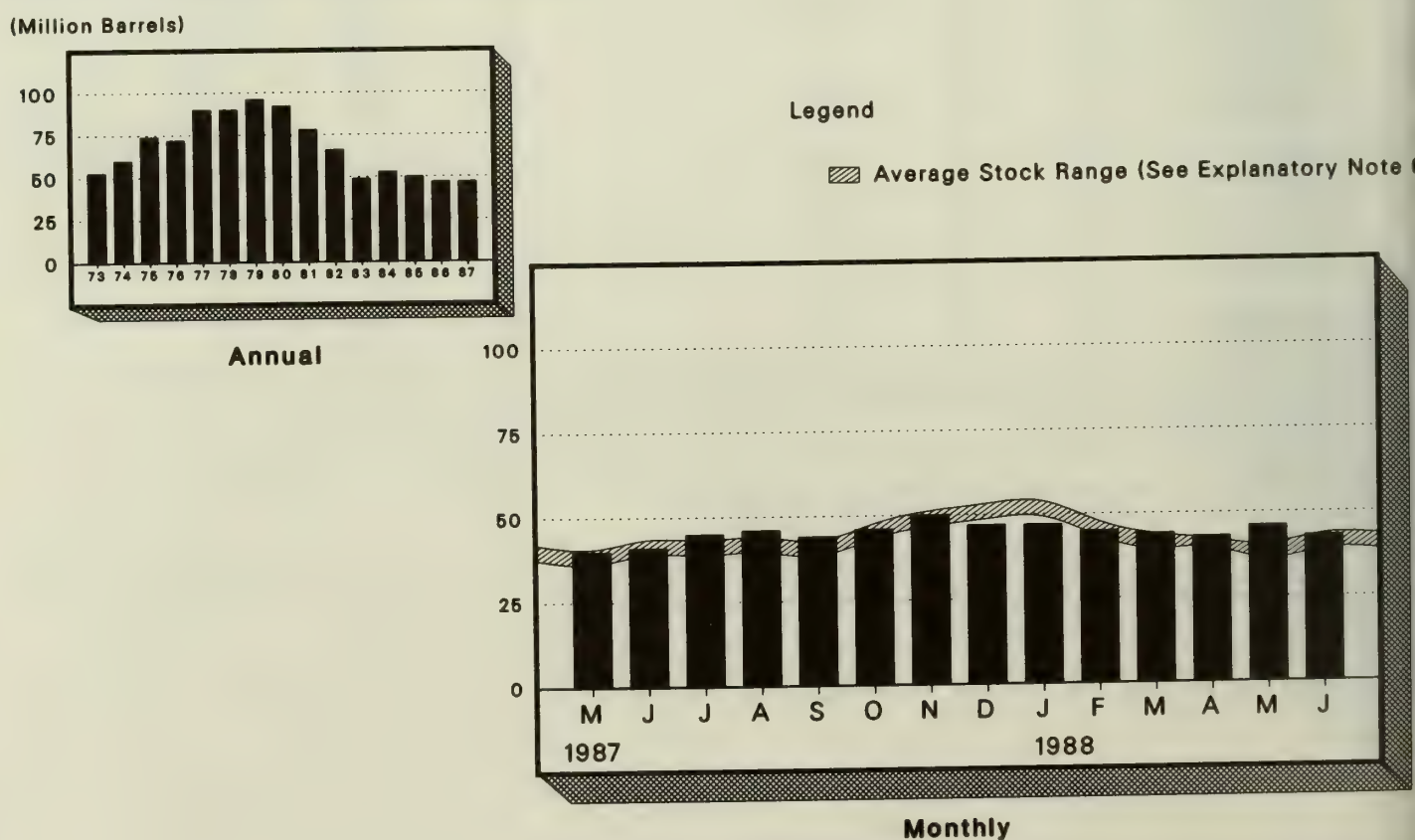


Table S6. Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
								Million Barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	⁴ 92
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	⁴ 66
1983	Average	852	699	⁴ 55	—	185	1,421	49
1984	Average	891	681	-12	—	190	1,369	53
1985	Average	882	510	7	—	197	1,202	50
1986	January	940	622	56	--	211	1,407	49
	February	856	604	200	--	183	1,478	43
	March	813	626	108	--	113	1,435	40
	April	933	545	127	--	202	1,402	36
	May	913	675	-114	--	129	1,345	39
	June	818	712	-111	--	43	1,377	43
	July	850	673	75	--	90	1,508	40
	August	896	793	-29	--	174	1,485	41
	September	854	641	-89	--	110	1,296	44
	October	827	635	-59	--	144	1,259	46
	November	975	574	-15	--	143	1,391	46
	December	987	913	-37	--	224	1,638	47
		Average	889	669	8	--	147	1,418
1987	January	920	701	81	--	198	1,504	45
	February	825	668	243	--	221	1,515	38
	March	863	559	-38	--	150	1,234	39
	April	831	476	114	--	239	1,182	36
	May	813	505	-145	--	144	1,029	40
	June	864	481	-33	--	105	1,207	41
	July	901	721	-108	--	175	1,339	45
	August	882	512	-32	--	185	1,176	46
	September	904	526	42	--	177	1,296	44
	October	887	414	-39	--	194	1,069	46
	November	928	568	-145	--	146	1,205	50
	December	1,001	650	83	--	300	1,434	47
		Average	885	565	(s)	—	186	1,264
1988	January	1,009	737	23	--	190	1,578	47
	February	997	792	40	--	229	1,601	45
	March	944	610	45	--	165	1,434	44
	April	951	465	27	--	170	1,272	43
	May [*]	^R 866	^R 423	^R -81	—	^R 263	^R 945	^R 46
	June ^{**}	^E 845	^E 283	^E 40	—	^E 167	^E 1,001	^E 43
	6-Mo. Average	^E 935	^E 551	^E 15	—	^E 197	^E 1,304	—
1987	6-Mo. Average	853	564	34	—	175	1,276	—
1986	6-Mo. Average	879	631	42	—	146	1,406	—

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

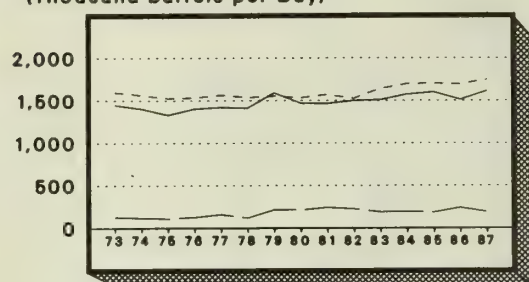
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels per Day)



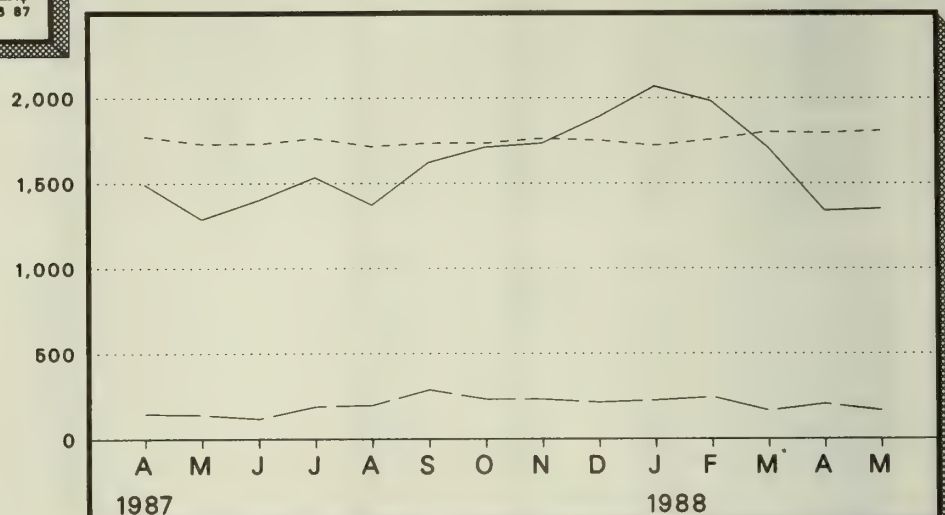
Annual

Legend

Products Supplied

Total Production

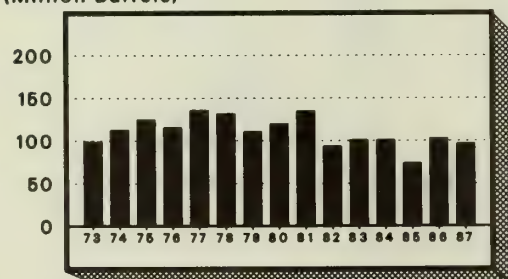
Imports



Monthly

Figure S12. Liquefied Petroleum Gases Ending Stocks

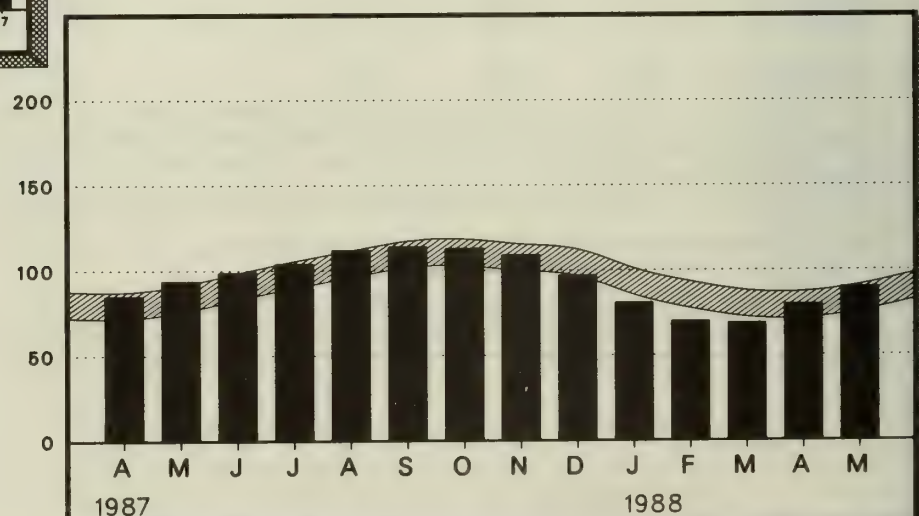
(Million Barrels)



Annual

Legend

Average Stock Range (See Explanatory Note)



Monthly

Table S7. Liquefied Petroleum Gases¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
								Million Barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	⁴ 113
1975	Average	1,527	112	⁴ -35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	⁴ 120
1981	Average	1,571	244	⁴ -18	289	42	1,466	135
1982	Average	1,528	226	111	300	65	1,499	⁴ 94
1983	Average	1,642	190	⁴ 4	253	73	1,509	⁴ 101
1984	Average	1,697	195	⁴ 19	291	48	1,572	101
1985	Average	1,704	187	75	304	62	1,599	74
1986	January	1,850	280	80	364	47	1,800	71
	February	1,815	208	108	325	74	1,733	68
	March	1,693	202	-98	250	47	1,500	71
	April	1,642	134	-200	256	33	1,286	77
	May	1,685	196	-336	267	40	1,238	87
	June	1,649	253	-490	228	25	1,158	102
	July	1,684	303	-450	199	50	1,287	116
	August	1,619	271	-332	243	53	1,262	126
	September	1,631	282	-142	288	27	1,456	131
	October	1,625	234	249	332	26	1,750	123
	November	1,724	310	254	417	53	1,817	115
	December	1,725	227	411	456	33	1,875	103
		Average	1,695	242	-80	302	42	1,512
1987	January	1,751	183	500	419	43	1,971	87
	February	1,762	201	205	341	38	1,789	81
	March	1,761	132	-10	282	52	1,550	82
	April	1,775	149	-121	274	36	1,493	85
	May	1,732	142	-283	269	34	1,288	94
	June	1,732	119	-175	255	22	1,400	99
	July	1,764	190	-145	244	30	1,534	104
	August	1,717	198	-259	252	33	1,372	112
	September	1,736	288	-81	266	56	1,622	114
	October	1,736	233	59	294	23	1,711	113
	November	1,763	233	129	356	35	1,735	109
	December	1,753	214	372	395	56	1,887	97
		Average	1,748	190	15	304	38	1,612
1988	January	1,723	226	529	366	44	2,069	81
	February	1,757	245	364	336	47	1,982	70
	March	1,802	165	45	266	36	1,710	69
	April	1,796	205	-362	256	43	1,339	80
	May*	1,809	165	-333	253	37	1,350	90
	5-Mo. Average	1,778	200	47	295	41	1,689	—
1987	5-Mo. Average	1,756	161	56	317	41	1,616	—
1986	5-Mo. Average	1,736	205	-92	292	48	1,508	—

¹ Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

* See Explanatory Note 9.5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,418	277	⁴ 4	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	⁴ 253
1983	Average	3,460	411	⁴ 6	712	242	2,923	⁴ 256
1984	Average	3,632	565	⁴ 23	791	245	3,183	240
1985	Average	3,721	588	-17	886	240	3,166	246
1986	January	3,902	541	⁵ -172	967	311	2,993	252
	February	3,868	393	-209	747	270	3,035	⁵ 258
	March	3,754	454	⁵ 21	854	208	3,167	257
	April	3,788	638	-100	760	369	3,196	260
	May	4,055	659	-114	810	298	3,492	⁵ 264
	June	4,209	687	⁵ -70	853	263	3,710	266
	July	4,145	589	⁵ 119	1,064	357	3,432	262
	August	4,223	572	335	1,061	301	3,768	⁵ 252
	September	4,225	571	⁵ 35	846	278	3,708	⁵ 251
	October	3,969	575	⁵ -112	666	375	3,391	254
	November	3,904	559	⁵ 36	940	342	3,217	253
	December	3,920	490	⁵ 90	1,069	325	3,105	250
	Average	3,997	561	-10	888	308	3,353	--
1987	January	3,852	469	-121	659	219	3,323	254
	February	3,796	687	-389	352	320	3,422	265
	March	3,766	663	-128	757	281	3,262	269
	April	3,933	589	107	872	254	3,502	266
	May	4,049	529	178	913	320	3,523	260
	June	4,203	712	158	896	320	3,857	255
	July	4,363	550	91	835	256	3,913	253
	August	4,340	616	-148	693	238	3,876	257
	September	4,350	611	-24	903	353	3,681	258
	October	4,223	686	14	971	272	3,680	258
	November	4,010	583	-20	975	305	3,294	258
	December	4,050	633	261	1,091	330	3,523	250
	Average	4,080	610	1	829	289	3,572	--
1988	January	3,988	639	-143	785	354	3,345	254
	February	3,941	570	-35	726	318	3,433	255
	March	4,175	603	-269	656	328	3,525	264
	April	4,052	697	-97	832	288	3,533	267
	May	4,097	752	-341	471	274	3,763	277
	5-Mo. Average	4,052	653	-179	693	312	3,521	--
1987	5-Mo. Average	3,881	585	-66	717	278	3,405	--
1986	5-Mo. Average	3,874	539	-113	830	291	3,179	--

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Ending stocks and stock withdrawal for 1986 are slightly different from those published in the 1986 *Petroleum Supply Annual* (PSA)-- Volume 1.

PSA statistics inadvertently omitted stocks of other hydrocarbons and alcohol.

* See Explanatory Note 9.6.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

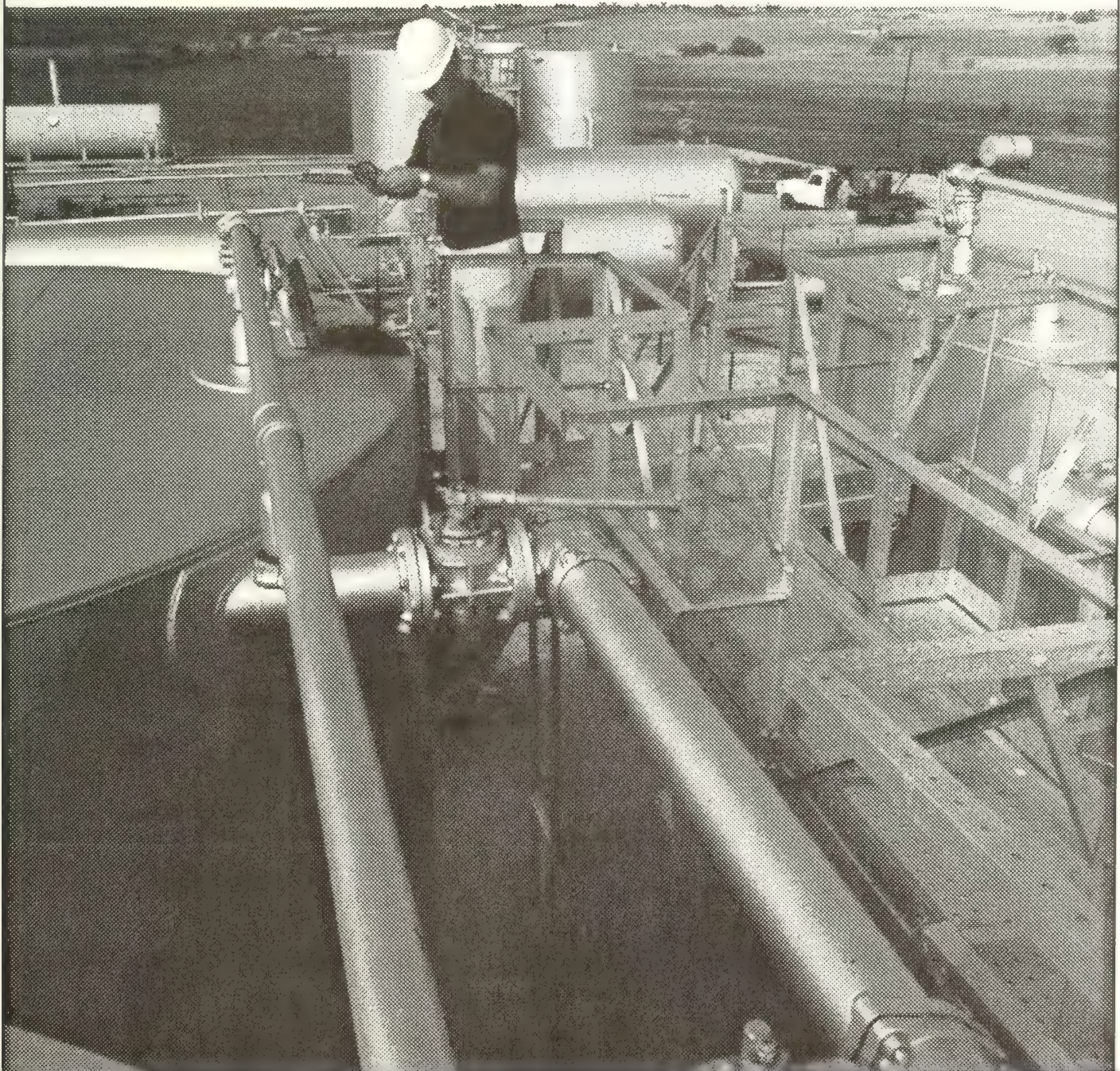
Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1987: EIA, *Petroleum Supply Annual*.
4. January 1988 through May 1988: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6.)
5. June 1988: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 1.1.)
6. January 1988 through June 1988: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey. (See Explanatory Note 3.)

1897-1898. Vol. 1. 1897-1898. 1897-1898.

Detailed Statistics



1871-1872

Table 1. U.S. Petroleum Balance, May 1988

	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 62,493	E 2,016	E 310,028	E 2,040
(2) Lower 48 States	E 191,798	E 6,187	E 949,536	E 6,247
(3) Total U.S.	E 254,291	E 8,203	E 1,259,564	E 8,287
Net Imports				
(4) Imports (Gross Excluding SPR)	161,589	5,213	736,547	4,846
(5) SPR Imports	680	22	7,208	47
(6) Exports	4,384	141	25,531	168
(7) Imports (Net Including SPR)	157,885	5,093	718,224	4,725
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-691	-22	-7,301	-48
(9) Other Stock Withdrawal (+) or Addition (-)	-593	-19	-8,435	-55
(10) Product Supplied and Losses	-1,049	-34	-6,553	-43
(11) Unaccounted for ¹	7,785	251	33,336	219
(12) Total Other Sources	5,452	176	11,047	73
(13) Crude Input to Refineries	417,628	13,472	1,988,835	13,084
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	50,359	1,624	243,958	1,605
(15) Net Imports ²	206	7	1,556	10
(16) Stock Withdrawal (+) or Addition (-) ²	-90	-3	-1,653	-11
(17) Total NGPL Supply	50,475	1,628	243,861	1,604
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	-9,803	-316	-18,631	-123
(19) Imports	14,884	480	61,701	406
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,647	53	8,744	58
(21) Refinery Processing Gain ¹	20,941	676	102,310	673
(22) Crude Oil Product Supplied	1,042	34	6,531	43
(23) Total Other Liquids	28,711	926	160,655	1,057
(23) = (18) through (22)				
(24) Total Production of Products ³	496,814	16,026	2,393,351	15,746
(24) = (13) + (17) + (23)				
Net Imports of Refined Products ³				
(25) Imports (Gross)	46,321	1,494	253,192	1,666
(26) Exports	20,880	674	98,617	649
(27) Imports (Net)	25,442	821	154,575	1,017
(28) Total New Supply of Products	522,256	16,847	2,547,926	16,763
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) ³	-22,619	-730	32,235	212
(30) Total Petroleum Products Supplied for Domestic Use	499,637	16,117	2,580,161	16,975
(30) = (28) + (29)				
(31) Finished Motor Gasoline	225,339	7,269	1,082,259	7,120
(32) Distillate Fuel Oil	85,459	2,757	492,266	3,239
(33) Residual Fuel Oil	29,293	945	207,274	1,364
(34) Liquefied Petroleum Gases	41,862	1,350	256,661	1,689
(35) Other ⁴	116,642	3,763	535,169	3,521
(36) Crude Oil	1,042	34	6,531	43
(37) Total Product Supplied	499,637	16,117	2,580,161	16,975
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	357,724	--	357,724	--
(39) Strategic Petroleum Reserve (SPR)	547,949	--	547,949	--
(40) Unfinished Oils	112,069	--	112,069	--
(41) Gasoline Blending Components ⁵	37,831	--	37,831	--
(42) Pentanes Plus	8,684	--	8,684	--
(43) Finished Refined Products ³	547,379	--	547,379	--
(44) Total Stocks	1,611,636	--	1,611,636	--

¹ A balancing item.² Includes products in the pentanes plus category only.³ For products included see Explanatory Note 9.7.⁴ Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.⁵ Includes other hydrocarbons and alcohol.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, May 1988
(Thousand Barrels)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 254,291	0	162,269	-1,284	7,785	7	417,628	4,384	1,042
Natural Gas Liquids and LRGs	50,241	15,183	5,389	-10,411	0	0	12,737	1,214	46,451
Pentanes Plus	9,356	0	271	-90	0	0	4,883	65	4,589
Liquefied Petroleum Gases	40,885	15,183	5,118	-10,321	0	0	7,854	1,149	41,862
Ethane	15,577	214	19	-846	0	0	90	130	14,744
Propane	15,574	11,005	2,437	-7,381	0	0	246	630	20,759
Normal Butane	5,228	3,475	1,725	-2,231	0	0	2,904	325	4,968
Isobutane	4,506	489	937	137	0	0	4,614	65	1,390
Other Liquids	1,647	0	14,884	-9,803	0	0	9,716	0	-2,988
Other Hydrocarbons and Alcohol	1,647	0	0	96	0	0	1,743	0	0
Unfinished Oils	0	0	12,202	-9,222	0	0	6,620	0	-3,640
Motor Gasoline Blending Components	0	0	2,682	-739	0	0	1,291	0	652
Aviation Gasoline Blending Components	0	0	0	62	0	0	62	0	0
Finished Petroleum Products	118	445,839	41,203	-12,298	0	0	0	19,730	455,132
Finished Motor Gasoline	10	212,254	12,877	1,051	0	0	0	853	225,339
Finished Leaded Motor Gasoline	9	42,036	1,157	2,120	0	0	0	201	45,121
Finished Unleaded Motor Gasoline	1	170,218	11,720	-1,069	0	0	0	652	180,218
Finished Aviation Gasoline	0	938	85	-10	0	0	0	0	1,013
Naphtha-Type Jet Fuel	0	7,090	110	-684	0	0	0	83	6,433
Kerosene-Type Jet Fuel	0	32,848	3,125	-122	0	0	0	119	35,732
Kerosene	0	1,488	77	383	0	0	0	13	1,935
Distillate Fuel Oil	44	90,807	7,065	-10,162	0	0	0	2,295	85,459
Residual Fuel Oil	0	26,838	13,098	-2,501	0	0	0	8,142	29,293
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,724	2,759	112	0	0	0	142	6,453
Other Oils > 400 Deg. for Petro. Feed. Use	0	6,010	0	-352	0	0	0	389	5,268
Special Naphthas	0	1,661	300	-154	0	0	0	327	1,480
Lubricants	0	5,601	387	220	0	0	0	734	5,474
Waxes	0	501	71	34	0	0	0	65	541
Petroleum Coke	0	16,784	54	-34	0	0	0	6,508	10,296
Asphalt and Road Oil	0	15,343	1,142	544	0	0	0	7	17,022
Still Gas	0	21,579	0	0	0	0	0	0	21,579
Miscellaneous Products	64	2,373	53	-623	0	0	0	53	1,814
Total	306,297	461,022	223,745	-33,796	7,785	7	440,081	25,328	499,637
Total									1,611,636

¹ Unaccounted for crude oil is a balancing item.

(E) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - May 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 1,259,564	0	743,755	-15,736	33,336	22	1,988,835	25,531	6,531	905,673
Natural Gas Liquids and LRGs	243,359	72,203	32,324	5,507	0	0	68,622	6,594	278,176	98,676
Pentanes Plus	45,381	0	1,861	-1,653	0	0	23,769	305	21,515	8,684
Liquefied Petroleum Gases	197,978	72,203	30,463	7,160	0	0	44,853	6,289	256,661	89,992
Ethane	72,447	1,203	230	3,929	0	0	318	614	76,878	18,330
Propane	78,141	51,951	15,703	2,929	0	0	1,181	3,815	143,728	44,920
Normal Butane	25,533	17,055	9,021	-613	0	0	22,737	1,556	26,703	17,161
Isobutane	21,857	1,994	5,509	915	0	0	20,617	305	9,352	9,581
Other Liquids	8,744	0	61,701	-18,631	0	0	81,499	0	-29,685	149,900
Other Hydrocarbons and Alcohol	8,744	0	0	-45	0	0	8,699	0	0	477
Unfinished Oils	0	0	53,670	-18,884	0	0	57,140	0	-22,354	112,069
Motor Gasoline Blending Components	0	0	8,031	209	0	0	15,501	0	-7,261	37,187
Aviation Gasoline Blending Components	0	0	0	89	0	0	159	0	-70	167
Finished Petroleum Products	599	2,169,063	222,729	25,075	0	0	0	92,327	2,325,139	457,387
Finished Motor Gasoline	48	1,030,695	53,824	437	0	0	0	2,745	1,082,259	188,457
Finished Leaded Motor Gasoline	43	204,306	2,350	8,067	0	0	0	1,027	213,739	45,128
Finished Unleaded Motor Gasoline	5	826,389	51,474	-7,630	0	0	0	1,718	868,520	143,329
Finished Aviation Gasoline	0	3,399	89	367	0	0	0	0	3,855	1,964
Naphtha-Type Jet Fuel	0	30,530	424	559	0	0	0	101	31,412	7,397
Kerosene-Type Jet Fuel	0	177,111	12,879	2,579	0	0	0	5,634	186,935	39,392
Kerosene	0	11,731	2,307	2,850	0	0	0	181	16,707	5,597
Distillate Fuel Oil	225	432,090	41,429	30,030	0	0	0	11,508	492,266	104,452
Residual Fuel Oil	0	144,829	91,752	1,591	0	0	0	30,898	207,274	45,746
Naphtha < 400 Deg. for Petro. Feed. Use	0	19,495	10,973	125	0	0	0	642	29,951	2,211
Other Oils > 400 Deg. for Petro. Feed. Use	0	33,665	759	-747	0	0	0	2,586	31,091	2,348
Special Naphthas	0	8,317	1,615	32	0	0	0	711	9,253	3,621
Lubricants	0	27,033	1,851	-530	0	0	0	3,609	24,745	13,847
Waxes	0	2,602	261	-20	0	0	0	220	2,623	803
Petroleum Coke	0	82,789	216	-725	0	0	0	33,171	49,109	7,485
Asphalt and Road Oil	0	52,748	4,097	-11,261	0	0	0	27	45,557	30,060
Still Gas	0	101,421	0	0	0	0	0	0	101,421	0
Miscellaneous Products	326	10,608	253	-212	0	0	0	294	10,681	4,007
Total	1,512,266	2,241,266	1,060,509	-3,785	33,336	22	2,138,956	124,453	2,580,161	1,611,636

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, May 1988

(Thousand Barrels per Day)									
Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,203	0	5,234	-41	251	(s)	13,472	141	34
Natural Gas Liquids and LRGs	1,621	490	174	-336	0	0	411	39	1,498
Pentanes Plus	302	0	9	-3	0	0	158	2	148
Liquefied Petroleum Gases	1,319	490	165	-333	0	0	253	37	1,350
Ethane	502	7	1	-27	0	0	3	4	476
Propane	502	355	79	-238	0	0	8	20	670
Normal Butane	169	112	56	-72	0	0	94	10	160
Isobutane	145	16	30	4	0	0	149	2	45
Other Liquids	53	0	480	-316	0	0	313	0	-96
Other Hydrocarbons and Alcohol	53	0	0	3	0	0	56	0	0
Unfinished Oils	0	0	394	-297	0	0	214	0	-117
Motor Gasoline Blending Components	0	0	87	-24	0	0	42	0	21
Aviation Gasoline Blending Components	0	0	0	2	0	0	2	0	0
Finished Petroleum Products	4	14,382	1,329	-397	0	0	0	636	14,682
Finished Motor Gasoline	(s)	6,847	415	34	0	0	0	28	7,269
Finished Leaded Motor Gasoline	(s)	1,356	37	68	0	0	0	6	1,456
Finished Unleaded Motor Gasoline	(s)	5,491	378	-34	0	0	0	21	5,813
Finished Aviation Gasoline	0	30	3	(s)	0	0	0	0	33
Naphtha-Type Jet Fuel	0	229	4	-22	0	0	0	3	208
Kerosene-Type Jet Fuel	0	1,060	101	-4	0	0	0	4	1,153
Kerosene	0	48	2	12	0	0	0	(s)	62
Distillate Fuel Oil	1	2,929	228	-328	0	0	0	74	2,757
Residual Fuel Oil	0	866	423	-81	0	0	0	263	945
Naphtha < 400 Deg. for Petro. Feed. Use	0	120	89	4	0	0	0	5	208
Other Oils > 400 Deg. for Petro. Feed. Use	0	194	0	-11	0	0	0	13	170
Special Naphthas	0	54	10	-5	0	0	0	11	48
Lubricants	0	181	12	7	0	0	0	24	177
Waxes	0	16	2	1	0	0	0	2	17
Petroleum Coke	0	541	2	-1	0	0	0	210	332
Asphalt and Road Oil	0	495	37	18	0	0	0	(s)	549
Still Gas	0	696	0	0	0	0	0	0	696
Miscellaneous Products	2	77	2	-20	0	0	0	2	59
Total	9,881	14,872	7,218	-1,090	251	(s)	14,196	817	16,117

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - May 1988
(Thousand Barrels per Day)

(Thousand Barrels per Day)									
Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,287	0	4,893	-104	219	(s)	13,084	168	43
Natural Gas Liquids and LRGs									
Pentanes Plus	1,601	475	213	36	0	0	451	43	1,830
Liquefied Petroleum Gases	299	0	12	-11	0	0	156	2	142
Ethane	1,302	475	200	47	0	0	295	41	1,689
Propane	477	8	2	26	0	0	2	4	506
Normal Butane	514	342	103	19	0	0	8	25	946
Isobutane	168	112	59	-4	0	0	150	10	176
	144	13	36	6	0	0	136	2	62
Other Liquids									
Other Hydrocarbons and Alcohol	58	0	406	-123	0	0	536	0	-195
Unfinished Oils	58	0	0	(s)	0	0	57	0	0
Motor Gasoline Blending Components	0	0	353	-124	0	0	376	0	-147
Aviation Gasoline Blending Components	0	0	53	1	0	0	102	0	-48
	0	0	0	1	0	0	1	0	(s)
Finished Petroleum Products	4	14,270	1,465	165	0	0	0	607	15,297
Finished Motor Gasoline	(s)	6,781	354	3	0	0	0	18	7,120
Finished Leaded Motor Gasoline	(s)	1,344	15	53	0	0	0	7	1,406
Finished Unleaded Motor Gasoline	(s)	5,437	339	-50	0	0	0	11	5,714
Finished Aviation Gasoline	0	22	1	2	0	0	0	0	25
Naphtha-Type Jet Fuel	0	201	3	4	0	0	0	1	207
Kerosene-Type Jet Fuel	0	1,165	85	17	0	0	0	37	1,230
Kerosene	0	77	15	19	0	0	0	1	110
Distillate Fuel Oil	1	2,843	273	198	0	0	0	76	3,239
Residual Fuel Oil	0	953	604	10	0	0	0	203	1,364
Naphtha < 400 Deg. for Petro. Feed. Use	0	128	72	1	0	0	0	4	197
Other Oils > 400 Deg. for Petro. Feed. Use	0	221	5	-5	0	0	0	17	205
Special Naphthas	0	55	11	(s)	0	0	0	5	61
Lubricants	0	178	12	-3	0	0	0	24	183
Waxes	0	17	2	(s)	0	0	0	1	17
Petroleum Coke	0	545	1	-5	0	0	0	218	323
Asphalt and Road Oil	0	347	27	-74	0	0	0	(s)	300
Still Gas	0	667	0	0	0	0	0	0	667
Miscellaneous Products	2	70	2	-1	0	0	0	2	70
Total	9,949	14,745	6,977	-25	219	(s)	14,072	819	16,975

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 6. PAD District I—Supply and Disposition of Crude Oil and Petroleum Products, May 1988

(Thousands Barrels)											
Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)											
E 1,163	0	34,307	649	1,971	658	0	38,748	0	0	0	16,324
Natural Gas Liquids and LRGs											
850	1,451	1,032	-523	0	1,517	0	159	22	4,146	3,709	
722	1,451	789	-519	0	1,517	0	132	22	3,806	3,663	
128	0	243	-4	0	0	0	27	0	340	46	
Other Liquids											
55	0	6,582	-1,998	0	398	0	5,272	0	-235	16,920	
55	0	0	11	0	0	0	66	0	0	66	
0	0	4,057	-1,755	0	162	0	3,364	0	-900	12,272	
0	0	2,525	-254	0	236	0	1,842	0	665	4,582	
0	0	0	0	0	0	0	0	0	0	0	
Finished Petroleum Products											
0	44,758	34,390	-7,569	0	71,804	0	0	372	143,011	139,168	
0	19,818	11,886	479	0	43,198	0	0	18	75,363	58,566	
0	2,284	1,153	727	0	6,414	0	0	5	10,573	10,573	
0	17,534	10,733	-248	0	36,784	0	0	13	64,790	47,993	
0	13	0	33	0	205	0	0	0	251	337	
0	750	0	-265	0	515	0	0	3	997	1,434	
0	1,844	1,770	-423	0	9,442	0	0	8	12,625	9,929	
0	154	77	446	0	100	0	0	12	765	1,974	
0	9,769	6,699	-5,137	0	14,973	0	0	19	26,285	35,238	
0	3,944	12,282	-1,991	0	826	0	0	6	15,055	18,116	
0	548	185	-97	0	-71	0	0	45	520	507	
0	83	85	19	0	280	0	0	12	455	1,069	
0	793	325	25	0	1,662	0	0	172	2,633	3,159	
0	77	46	-15	0	12	0	0	4	116	77	
0	1,215	0	76	0	0	0	0	34	1,257	496	
0	3,414	988	-176	0	621	0	0	2	4,845	6,942	
0	1,881	0	0	0	0	0	0	0	1,881	0	
0	455	47	-543	0	41	0	0	38	-38	1,324	
Total											
2,068	46,209	76,310	-9,441	1,971	74,377	0	44,179	394	146,922	176,121	

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
(s) = Less than 500 barrels.
E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 7. PAD District II--Supply and Disposition of Crude Oil and Petroleum Products, May 1988
(Thousand Barrels)

(Thousands Barrels)											
Commodity	Supply				Disposition				Ending Stocks		
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 26,062	0	16,244	-2,178	531	50,548	0	91,065	142	0	79,723
Natural Gas Liquids and LRGs	9,800	3,011	1,877	-2,919	0	-80	0	3,138	548	8,002	28,510
Liquefied Petroleum Gases	8,360	3,011	1,849	-3,211	0	-495	0	2,184	484	6,846	25,590
Pentanes Plus	1,440	0	28	292	0	415	0	954	65	1,156	2,920
Other Liquids	354	0	0	1,102	0	-166	0	2,510	0	-1,220	23,526
Other Hydrocarbons and Alcohol	354	0	0	22	0	0	0	376	0	0	172
Unfinished Oils	0	0	0	1,332	0	0	0	2,059	0	-727	15,702
Motor Gasoline Blending Components	0	0	0	-335	0	-166	0	-8	0	-493	7,578
Aviation Gasoline Blending Components	0	0	0	83	0	0	0	83	0	0	74
Finished Petroleum Products	4	98,123	1,724	-1,705	0	22,713	0	0	410	120,449	118,141
Finished Motor Gasoline	0	52,914	86	-121	0	14,969	0	0	9	67,839	55,727
Finished Leaded Motor Gasoline	0	10,386	2	273	0	3,335	0	0	3	13,993	14,708
Finished Unleaded Motor Gasoline	0	42,528	84	-394	0	11,634	0	0	7	53,845	41,019
Finished Aviation Gasoline	0	57	0	75	0	114	0	0	0	246	562
Naphtha-Type Jet Fuel	0	862	100	-163	0	25	0	0	0	824	1,388
Kerosene-Type Jet Fuel	0	5,153	1,224	516	0	1,648	0	0	0	8,541	8,010
Kerosene	0	133	0	48	0	-227	0	0	0	-47	1,660
Distillate Fuel Oil	0	21,652	102	-2,275	0	5,828	0	0	60	25,247	28,813
Residual Fuel Oil	0	1,972	39	-6	0	-290	0	0	0	1,715	3,181
Petrochemical Feedstocks ²	0	951	9	-94	0	46	0	0	55	857	475
Special Naphthas	0	492	72	-88	0	147	0	0	3	620	589
Lubricants	0	746	11	160	0	327	0	0	57	1,187	2,204
Waxes	0	44	15	0	0	10	0	0	31	38	96
Petroleum Coke	0	3,604	0	-440	0	0	0	0	190	2,974	2,545
Asphalt and Road Oil	0	4,641	62	767	0	106	0	0	2	5,574	12,480
Still Gas	0	4,440	0	0	0	0	0	0	0	4,440	0
Miscellaneous Products	4	462	4	-84	0	10	0	0	2	394	411
Total	36,220	101,134	19,845	-5,700	531	73,015	0	96,713	1,100	127,231	249,900

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 8. PAD District III--Supply and Disposition of Crude Oil and Petroleum Products, May 1988
(Thousand Barrels)

Commodity	Supply					Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 113,348	0	101,856	-1,123	-1,024	-22,267	5	190,785	0	0	720,984
Natural Gas Liquids and LRGs	32,914	8,643	1,774	-6,726	0	563	0	7,995	395	28,778	63,548
Liquefied Petroleum Gases	27,349	8,643	1,774	-6,362	0	793	0	4,411	395	27,391	58,044
Pentanes Plus	5,565	0	0	-364	0	-230	0	3,584	0	1,387	5,504
Other Liquids	814	0	7,701	-5,037	0	-442	0	5,022	0	-1,986	69,442
Other Hydrocarbons and Alcohol	814	0	0	57	0	0	0	871	0	0	210
Unfinished Oils	0	0	7,544	-4,374	0	-312	0	5,244	0	-2,386	53,937
Motor Gasoline Blending Components	0	0	157	-707	0	-130	0	-1,080	0	400	15,243
Aviation Gasoline Blending Components	0	0	0	-13	0	0	0	-13	0	0	52
Finished Petroleum Products	110	205,416	3,379	-639	0	-97,457	0	0	9,682	101,127	127,474
Finished Motor Gasoline	10	97,666	250	214	0	-59,983	0	0	821	37,336	47,295
Finished Leaded Motor Gasoline	9	17,805	0	806	0	-10,224	0	0	193	8,203	10,883
Finished Unleaded Motor Gasoline	1	79,861	250	-592	0	-49,759	0	0	629	29,132	36,412
Finished Aviation Gasoline	0	582	0	11	0	-337	0	0	0	256	543
Naphtha-Type Jet Fuel	0	3,140	0	-33	0	-707	0	0	0	2,400	2,370
Kerosene-Type Jet Fuel	0	16,029	0	52	0	-11,756	0	0	108	4,217	13,298
Kerosene	0	1,089	0	-179	0	127	0	0	0	1,037	1,686
Distillate Fuel Oil	44	41,106	0	-921	0	-21,114	0	0	1,174	17,941	25,324
Residual Fuel Oil	0	9,868	350	-178	0	-536	0	0	2,902	6,602	15,525
Petrochemical Feedstocks ²	0	7,942	2,529	-147	0	25	0	0	323	10,026	3,303
Special Naphthas	0	946	133	-123	0	-427	0	0	45	484	1,773
Lubricants	0	3,428	51	32	0	-1,949	0	0	381	1,181	6,707
Waxes	0	287	0	30	0	-22	0	0	24	271	437
Petroleum Coke	0	7,568	54	330	0	0	0	0	3,895	4,057	2,514
Asphalt and Road Oil	0	4,180	10	253	0	-727	0	0	(s)	3,716	4,840
Still Gas	0	10,359	0	0	0	0	0	0	0	10,359	0
Miscellaneous Products	56	1,226	2	20	0	-51	0	0	9	1,244	1,859
Total	147,186	214,059	114,710	-13,525	-1,024	-119,603	5	203,802	10,077	127,919	981,448

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 9. PAD District IV--Supply and Disposition of Crude Oil and Petroleum Products, May 1988
(Thousand Barrels)

(Thousand Barrels)		Supply						Disposition				Ending Stocks
Commodity	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied		
Crude Oil (including lease condensate)	E 17,475	0	2,096	423	2,273	-7,292	0	14,975	0	0	13,333	
Natural Gas Liquids and LRGs	3,871	321	352	17	0	-2,000	0	469	31	2,061	1,078	
Liquefied Petroleum Gases	3,069	321	352	39	0	-1,815	0	386	31	1,549	911	
Pentanes Plus	802	0	0	-22	0	-185	0	83	0	512	167	
Other Liquids	5	0	0	-179	0	0	0	-450	0	276	4,389	
Other Hydrocarbons and Alcohol	5	0	0	0	0	0	0	5	0	0	9	
Unfinished Oils	0	0	0	-196	0	0	0	-482	0	286	2,385	
Motor Gasoline Blending Components	0	0	0	17	0	0	0	27	0	-10	1,995	
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	
Finished Petroleum Products	4	14,998	123	-376	0	-688	0	0	6	14,055	12,877	
Finished Motor Gasoline	0	7,325	45	271	0	-570	0	0	0	7,071	4,802	
Finished Leaded Motor Gasoline	0	2,739	2	8	0	-402	0	0	0	2,347	2,150	
Finished Unleaded Motor Gasoline	0	4,586	43	263	0	-168	0	0	0	4,724	2,652	
Finished Aviation Gasoline	0	19	0	7	0	18	0	0	0	44	57	
Naphtha-Type Jet Fuel	0	432	0	48	0	-199	0	0	(s)	281	366	
Naphtha-Type Jet Fuel	0	633	0	34	0	484	0	0	0	1,151	.757	
Kerosene-Type Jet Fuel	0	37	0	-35	0	0	0	0	0	2	76	
Kerosene	0	4,024	71	-487	0	-421	0	0	(s)	3,187	2,918	
Distillate Fuel Oil	0	417	0	-121	0	0	0	0	0	296	488	
Residual Fuel Oil	0	4	0	-3	0	0	0	0	2	-1	26	
Petrochemical Feedstocks ²	0	-2	0	0	0	0	0	0	0	-2	7	
Special Naphthas	0	52	0	-15	0	0	0	0	3	34	94	
Lubricants	0	46	1	-1	0	0	0	0	0	46	87	
Waxes	0	297	0	43	0	0	0	0	0	340	17	
Petroleum Coke	0	1,036	6	-109	0	0	0	0	(s)	933	3,140	
Asphalt and Road Oil	0	621	0	0	0	0	0	0	0	621	0	
Still Gas	0	57	0	-8	0	0	0	0	(s)	53	42	
Miscellaneous Products	4											
Total	21,355	15,319	2,571	-115	2,273	-9,980	0	14,994	37	16,391	31,677	

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 10. PAD District V--Supply and Disposition of Crude Oil and Petroleum Products, May 1988
(Thousand Barrels)

Commodity	Supply					Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 96,243	0	7,766	945	4,034	-21,647	2	82,055	4,242	1,042	75,309
Natural Gas Liquids and LRGs	2,806	1,757	355	-260	0	0	0	976	218	3,464	1,831
Liquefied Petroleum Gases	1,385	1,757	355	-268	0	0	0	741	218	2,270	1,784
Pentanes Plus	1,421	0	0	8	0	0	0	235	0	1,194	47
Other Liquids	419	0	601	-3,691	0	210	0	-2,638	0	177	35,623
Other Hydrocarbons and Alcohol	419	0	0	6	0	0	0	425	0	0	20
Unfinished Oils	0	0	601	-4,229	0	150	0	-3,565	0	87	27,773
Motor Gasoline Blending Components	0	0	0	540	0	60	0	510	0	90	7,789
Aviation Gasoline Blending Components	0	0	0	-8	0	0	0	-8	0	0	41
Finished Petroleum Products	0	82,544	1,587	-2,009	0	3,628	0	0	9,260	76,490	59,727
Finished Motor Gasoline	0	34,531	610	208	0	2,386	0	0	5	37,730	22,067
Finished Leaded Motor Gasoline	0	8,822	0	306	0	877	0	0	1	10,004	6,814
Finished Unleaded Motor Gasoline	0	25,709	610	-98	0	1,509	0	0	4	27,726	15,253
Finished Aviation Gasoline	0	267	85	-136	0	0	0	0	0	216	465
Naphtha-Type Jet Fuel	0	1,906	10	-271	0	366	0	0	80	1,931	1,839
Kerosene-Type Jet Fuel	0	9,189	131	-301	0	182	0	0	3	9,198	7,398
Kerosene	0	75	0	103	0	0	0	0	0	178	201
Distillate Fuel Oil	0	14,256	193	-1,342	0	734	0	0	1,041	12,800	12,159
Residual Fuel Oil	0	10,637	427	-205	0	0	0	0	5,234	5,625	8,436
Petrochemical Feedstocks ²	0	289	36	101	0	0	0	0	106	320	248
Special Naphthas	0	142	10	38	0	0	0	0	267	-77	183
Lubricants	0	582	0	18	0	-40	0	0	121	439	1,683
Waxes	0	47	9	20	0	0	0	0	7	69	106
Petroleum Coke	0	4,100	0	-43	0	0	0	0	2,389	1,668	1,913
Asphalt and Road Oil	0	2,072	76	-191	0	0	0	0	3	1,954	2,658
Still Gas	0	4,278	0	0	0	0	0	0	0	4,278	0
Miscellaneous Products	0	173	0	-8	0	0	0	0	4	161	371
Total	99,468	84,301	10,309	-5,015	4,034	-17,809	2	80,393	13,720	81,174	172,490

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 11. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	March 1988		January - March	
	Total	Daily Average	Total	Daily Average
PAD District I, Total	E 1,262	E 41	E 3,632	E 40
Florida	685	22	2,049	23
New York	E 50	E 2	E 143	E 2
Pennsylvania	E 254	E 8	E 702	E 8
Virginia	E 4	E 0	E 6	E 0
West Virginia	251	8	685	8
Adjustment ¹	18	1	47	1
PAD District II, Total	E 26,676	E 860	E 77,597	E 853
Illinois	2,000	65	6,040	66
Indiana	422	14	996	11
Kansas	5,157	166	14,696	161
Kentucky	432	14	1,273	14
Michigan	E 2,104	E 68	E 6,146	E 68
Missouri	E 12	E 0	E 30	E 0
Nebraska	477	15	1,413	16
North Dakota	3,379	109	9,894	109
Ohio	E 938	E 30	E 2,730	E 30
Oklahoma	11,198	361	33,128	364
South Dakota	144	5	429	5
Tennessee	50	2	E 147	E 2
Adjustment ¹	363	12	675	7
PAD District III, Total	E 115,215	E 3,717	E 338,805	E 3,723
Alabama	1,744	56	5,274	58
Arkansas	E 1,200	E 39	E 3,450	E 38
Louisiana ²	14,463	467	42,378	466
Mississippi	2,319	75	6,854	75
New Mexico	6,130	198	17,855	196
Texas ²	63,724	2,056	187,204	2,057
Federal Offshore PAD District III	E 25,820	E 833	E 75,348	E 828
Adjustment ¹	-185	-6	442	5
PAD District IV, Total	E 17,577	E 567	E 51,316	E 564
Colorado	E 2,747	E 89	E 7,702	E 85
Montana	2,040	66	5,979	66
Utah	2,864	92	8,533	94
Wyoming	9,842	317	29,098	320
Adjustment ¹	84	3	4	(s)
PAD District V, Total	98,041	3,163	285,895	3,142
Alaska ²	64,669	2,086	186,659	2,051
South Alaska	1,308	42	3,906	43
North Slope	63,361	2,044	182,755	2,008
Adjustment for Alaska ¹	0	0	-2	(s)
Arizona	10	(s)	30	(s)
California ²	30,678	990	89,784	987
Nevada	263	8	766	8
Federal Offshore PAD District V	2,437	79	7,502	82
Adjustment for Arizona, California, and Nevada ¹	-16	-1	1,154	13
U.S. Total²	E 258,771	E 8,347	E 757,245	E 8,321

¹ These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

² Includes the following current month offshore production (thousand barrels): Alaska: State - 4,426; California: State - 2,440; Louisiana: State - 2,232; Texas: State - 119; U.S. Total, including Federal offshore - E 37,474.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: State Conservation Agencies and the U.S. Minerals Management Service.

Table 12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District, May 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky. *	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.	Dist. V West Coast
Natural Gas Liquids	264	586	850	769	458	8,573	9,800	19,489	2,822	6,206	640	3,757	32,914	3,871	2,806	50,241
Pentanes Plus	53	75	128	138	119	1,183	1,440	3,608	222	1,085	155	495	5,565	802	1,421	9,356
Liquefied Petroleum Gases	211	511	722	631	339	7,390	8,360	15,881	2,600	5,121	485	3,262	27,349	3,069	1,385	40,885
Ethane	58	171	229	127	1	2,812	2,940	6,581	939	2,199	101	1,513	11,433	973	2	15,577
Propane	94	233	327	297	204	3,039	3,540	5,828	1,102	1,758	197	1,122	10,007	1,315	385	15,574
Normal Butane	45	73	118	107	128	972	1,207	2,474	-904	513	125	416	2,624	539	740	5,228
Isobutane	14	34	48	100	6	567	673	898	1,463	651	62	211	3,285	242	258	4,506
Finished Petroleum Products	0	0	0	1	0	3	4	46	53	0	11	0	110	4	0	118
Finished Motor Gasoline	0	0	0	0	0	0	0	1	9	0	0	0	10	0	0	10
Finished Leaded Motor Gasoline	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	9
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	44	0	0	0	44	0	0	44
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				1	0	3	4	45	0	0	11	0	56	4	0	64
Total Production	264	586	850	770	458	8,576	9,804	19,535	2,875	6,206	651	3,757	33,024	3,875	2,806	50,359

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, May 1988
(Thousand Barrels, Except Where Noted)

(Thousand Barrels, Except Where Noted)																
Commodity	PAD District I			PAD District II				PAD District III					PAD District IV		United States	
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.*	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast	
Crude Oil (including lease condensate)	35,623	3,125	38,748	60,171	9,309	21,585	91,065	15,320	98,051	69,662	5,730	2,022	190,785	14,975	82,055	417,628
Pentanes Plus	27	0	27	361	0	593	954	1,029	1,780	475	174	126	3,584	83	235	4,883
Liquefied Petroleum Gases	115	17	132	1,533	101	550	2,184	485	1,443	2,344	96	43	4,411	386	741	7,854
Ethane	0	0	0	0	0	0	0	0	21	69	0	0	90	0	0	90
Propane	0	0	0	70	0	0	70	3	127	44	0	2	176	0	0	246
Normal Butane	40	17	57	406	40	116	562	153	448	1,028	12	3	1,644	282	359	2,904
Isobutane	75	0	75	1,057	61	434	1,552	329	847	1,203	84	38	2,501	104	382	4,614
Other Liquids																
Other Hydrocarbons and Alcohol	66	0	66	365	1	10	376	0	417	436	0	18	871	5	425	1,743
Unfinished Oil (net)	3,237	127	3,364	1,713	-48	394	2,059	-428	5,408	258	19	-13	5,244	-482	-3,565	6,620
Motor Gasoline Blending Components (net)	1,796	46	1,842	62	28	-98	-8	-25	-950	-92	-30	17	-1,080	27	510	1,291
Aviation Gasoline Blending Components (net)	0	0	0	93	0	-10	83	0	0	-13	0	0	-13	0	-8	62
Total Input to Refineries	40,864	3,315	44,179	64,298	9,391	23,024	96,713	16,381	106,149	73,070	5,989	2,213	203,802	14,994	80,393	440,081
Crude Oil Distillation																
Gross Input (daily average)	1,153	101	1,254	1,946	300	698	2,945	497	3,203	2,303	181	66	6,249	484	2,698	13,630
Operable Capacity (daily average)	1,352	109	1,462	2,251	312	734	3,297	585	3,558	2,947	255	76	7,420	534	3,170	15,883
Operating Ratio (percent) ¹	85.3	92.4	85.8	86.5	96.2	95.1	89.3	85.0	90.0	78.1	71.2	87.0	84.2	90.6	85.1	85.8
Downstream Processing																
Fresh Feed Input (daily average)																
Catalytic Cracking	470	16	486	665	91	238	994	186	1,230	734	31	22	2,203	152	635	4,470
Catalytic Hydrocracking	60	0	60	126	0	5	131	0	186	181	0	0	367	3	343	904
Cokers	68	0	68	146	56	69	270	10	210	338	12	0	569	12	470	1,389
Crude Oil Qualities																
Sulfur Content, Weighted Average (percent)	1.21	.61	1.16	.95	2.28	.54	.99	.83	.94	1.37	1.33	.75	1.10	.79	1.19	1.09
API Gravity, Weighted Average	29.99	38.58	30.67	35.01	29.80	37.21	35.00	38.41	34.06	30.93	33.97	40.56	33.34	36.09	25.79	32.07
Operable Capacity (daily average)																
Operating	1,352	109	1,462	2,251	312	734	3,297	585	3,558	2,947	255	76	7,420	534	3,170	15,883
Idle	1,339	109	1,449	2,185	312	704	3,201	536	3,317	2,549	238	76	6,716	534	3,039	14,938
	13	0	13	66	0	30	96	49	241	398	17	0	705	(s)	131	945
Alaskan Crude Oil Receipts	782	0	782	1,816	0	149	1,965	0	4,055	5,993	312	0	10,360	0	43,132	56,239

¹ Represents gross input divided by operable capacity.

(s) = Less than 500 barrels.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 14. Refinery Net Production of Petroleum Products by PAD District, May 1988

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast	
Liquefied Refinery Gases	1,427	24	1,451	2,169	262	580	3,011	298	4,257	3,897	110	81	8,643	321	1,757	15,183
Ethane	128	0	128	0	0	0	0	-43	113	1	0	0	71	0	15	214
Propane	1,066	24	1,090	2,112	198	570	2,880	451	3,287	1,952	88	52	5,830	191	1,014	11,005
Normal Butane	111	0	111	46	43	-1	88	-283	874	1,915	22	20	2,548	149	579	3,475
Isobutane	122	0	122	11	21	11	43	173	-17	29	0	9	194	-19	149	489
Finished Motor Gasoline	18,705	1,113	19,818	35,746	4,812	12,356	52,914	8,691	50,918	35,104	1,767	1,186	97,666	7,325	34,531	212,254
Finished Leaded Motor Gasoline	1,989	295	2,284	5,582	850	3,954	10,386	2,475	7,741	6,749	430	410	17,805	2,739	8,822	42,036
Finished Unleaded Motor Gasoline	16,716	818	17,534	30,164	3,962	8,402	42,528	6,216	43,177	28,355	1,337	776	79,861	4,586	25,709	170,218
Finished Aviation Gasoline	13	0	13	35	0	22	57	170	229	183	0	0	582	19	267	938
Naphtha-Type Jet Fuel	750	0	750	519	30	313	862	869	992	815	218	246	3,140	432	1,906	7,090
Kerosene-Type Jet Fuel	1,844	0	1,844	3,534	513	1,106	5,153	852	7,798	7,212	132	35	16,029	633	9,189	32,848
Kerosene	100	54	154	206	-13	-60	133	16	969	101	3	0	1,089	37	75	1,488
Distillate Fuel Oil	8,662	1,107	9,769	13,154	2,441	6,057	21,652	3,425	20,307	15,200	1,680	494	41,106	4,024	14,256	90,807
Residual Fuel Oil	3,875	69	3,944	1,545	287	140	1,972	466	5,566	3,547	276	13	9,868	417	10,637	26,838
Naphtha < 400 Deg. for Petro. Feed. Use	541	0	541	617	0	111	728	141	2,115	74	44	6	2,380	4	71	3,724
Other Oils > 400 Deg. for Petro. Feed. Use	7	0	7	143	0	80	223	174	4,302	1,086	0	0	5,562	0	218	6,010
Special Naphthas	65	18	83	396	0	96	492	97	885	-187	151	0	946	-2	142	1,661
Lubricants	364	429	793	394	0	352	746	28	2,293	698	409	0	3,428	52	582	5,601
Waxes	0	77	77	11	0	33	44	9	182	39	57	0	287	46	47	501
Petroleum Coke	1,192	23	1,215	2,297	561	746	3,604	369	3,561	3,500	120	18	7,568	297	4,100	16,784
Marketable	259	0	259	1,298	435	466	2,199	53	1,811	2,622	78	0	4,564	105	3,078	10,205
Catalyst	933	23	956	999	126	280	1,405	316	1,750	878	42	18	3,004	192	1,022	6,579
Asphalt and Road Oil	3,175	239	3,414	3,047	637	957	4,641	420	991	1,794	894	81	4,180	1,036	2,072	15,343
Still Gas	1,744	137	1,881	3,023	353	1,064	4,440	774	6,077	3,238	182	88	10,359	621	4,278	21,579
Miscellaneous Products	403	52	455	369	41	52	462	9	706	511	0	0	1,226	57	173	2,373
Fuel Use	8	0	8	0	0	0	0	1	0	36	0	0	37	0	0	45
Non-Fuel Use	395	52	447	369	41	52	462	8	706	475	0	0	1,189	57	173	2,328
Total Production	42,867	3,342	46,209	67,205	9,924	24,005	101,134	16,808	112,148	76,812	6,043	2,248	214,059	15,319	84,301	461,022
Processing Gain(-) or Loss(+) ¹	-2,003	-27	-2,030	-2,907	-533	-981	-4,421	-427	-5,999	-3,742	-54	-35	-10,257	-325	-3,908	-20,941

1 Represents the arithmetic difference between input and output.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District, May 1988

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV		United States				
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.*	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.		New Mexico	Total	Dist. IV Rocky Mnt.	Dist. V West Coast
Liquefied Refinery Gases	3.7	0.7	3.4	3.5	2.8	2.6	3.2	2.0	4.1	5.6	1.9	4.0	4.4	2.2	2.2	3.6
Finished Motor Gasoline ²	43.0	32.3	42.2	54.0	50.6	51.4	53.1	48.4	46.6	45.7	26.6	48.9	45.9	47.1	41.6	46.3
Finished Aviation Gasoline ³	0	0	0	-1	0	1	0	1.1	2	3	0	0	3	1	4	2
Naphtha-Type Jet Fuel	1.9	0	1.8	8	3	1.4	9	5.8	1.0	1.2	3.8	12.2	1.6	3.0	2.4	1.7
Kerosene-Type Jet Fuel	4.7	0	4.4	5.7	5.5	5.0	5.5	5.7	7.5	10.3	2.3	1.7	8.2	4.4	11.7	7.7
Kerosene	3	1.7	4	3	-1	-3	1	1	9	1	1	0	6	3	1	4
Distillate Fuel Oil	22.3	34.0	23.2	21.3	26.4	27.6	23.3	23.0	19.6	21.7	29.2	24.6	21.0	27.8	18.2	21.4
Residual Fuel Oil	10.0	2.1	9.4	2.5	3.1	6	2.1	3.1	5.4	5.1	4.8	6	5.0	2.9	13.6	6.3
Naphtha < 400 Deg. for Petro. Feed. Use	1.4	0	1.3	1.0	0	5	8	9	2.0	1	8	3	1.2	0	1	9
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	2	0	4	2	1.2	4.2	1.6	0	0	2.8	0	3	1.4
Special Naphthas	2	6	2	6	0	4	5	7	9	-3	2.6	0	5	0	2	4
Lubricants	9	13.2	1.9	6	0	1.6	8	2	2.2	1.0	7.1	0	1.7	4	7	1.3
Waxes	0	2.4	2	0	0	2	0	1	2	1	1.0	0	1	3	1	1
Petroleum Coke	3.1	7	2.9	3.7	6.1	3.4	3.9	2.5	3.4	5.0	2.1	9	3.9	2.0	5.2	4.0
Asphalt and Road Oil	8.2	7.3	8.1	4.9	6.9	4.4	5.0	2.8	1.0	2.6	15.6	4.0	2.1	7.1	2.6	3.6
Still Gas	4.5	4.2	4.5	4.9	3.8	4.8	4.8	5.2	5.9	4.6	3.2	4.4	5.3	4.3	5.5	5.1
Miscellaneous Products	1.0	1.6	1.1	6	4	2	5	1	7	7	0	0	6	4	2	6
Processing Gain(-) or Loss(+) ⁴	-5.2	-8	-4.8	-4.7	-5.8	-4.5	-4.7	-2.9	-5.8	-5.4	-9	-1.7	-5.2	-2.2	-5.0	-4.9

¹ Based on crude oil input and net reruns of unfinished oils.

² Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

³ Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

⁴ Represents the difference between Input and Production.

Note: Total may not equal sum of components due to independent rounding.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, May 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	34,307	31,770	86,330	2,096	7,766	162,269
Natural Gas Liquids	1,032	1,877	1,774	352	355	5,389
Pentanes Plus	243	28	0	0	0	271
Liquefied Petroleum Gases	789	1,849	1,774	352	355	5,118
Ethane	7	(s)	0	1	11	19
Propane	563	1,291	403	116	64	2,437
Normal Butane	142	363	886	153	182	1,725
Isobutane	76	195	485	82	98	937
Other Liquids ¹	6,479	867	6,937	0	601	14,884
Unfinished Oils ¹	3,954	867	6,780	0	601	12,202
Naphthas and Lighter	490	0	1,353	0	0	1,843
Kerosene and Light Gas Oils	0	0	521	0	0	521
Heavy Gas Oils	2,636	499	650	0	357	4,142
Residuum	828	368	4,256	0	244	5,696
Motor Gasoline Blending Components	2,525	0	157	0	0	2,682
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	34,390	1,724	3,379	123	1,587	41,203
Finished Motor Gasoline	11,886	86	250	45	610	12,877
Finished Leaded Motor Gasoline	1,153	2	0	2	0	1,157
Finished Unleaded Motor Gasoline	10,733	84	250	43	610	11,720
Finished Aviation Gasoline	0	0	0	0	85	85
Naphtha-Type Jet Fuel	0	100	0	0	10	110
Kerosene-Type Jet Fuel	1,770	1,224	0	0	131	3,125
Bonded Aircraft Fuel	1,116	1,224	0	0	0	2,340
Other	654	0	0	0	131	785
Kerosene	77	0	0	0	0	77
Distillate Fuel Oil	6,699	102	0	71	193	7,065
Bonded Ships Bunkers	0	0	0	0	0	0
Other	6,699	102	0	71	193	7,065
Residual Fuel Oil	12,282	39	350	0	427	13,098
Bonded Ships Bunkers	0	0	0	0	0	0
Other	12,282	39	350	0	427	13,098
Naphtha < 400 Deg. for Petro. Feed. Use	185	9	2,529	0	36	2,759
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	85	72	133	0	10	300
Lubricants	325	11	51	0	0	387
Waxes	46	15	0	1	9	71
Petroleum Coke	0	0	54	0	0	54
Asphalt and Road Oil	988	62	10	6	76	1,142
Miscellaneous Products	47	4	2	0	0	53
Total Imports	76,207	36,238	98,420	2,571	10,309	223,745
						7,218

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - May 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Total (Daily Average)
	I	II	III	IV	V	
Crude Oil (including lease condensate) ^{1 2}	170,307	143,830	395,978	8,754	24,886	743,755
Natural Gas Liquids	7,874	14,019	6,534	2,391	1,506	32,324
Pentanes plus	1,315	174	219	153	0	1,861
Liquefied Petroleum Gases	6,559	13,845	6,315	2,238	1,506	30,463
Ethane	25	110	61	1	34	230
Propane	3,939	9,056	1,330	1,129	248	15,703
Normal Butane	1,592	2,878	3,108	684	758	9,021
Isobutane	1,002	1,801	1,815	424	466	5,509
Other Liquids ¹	24,941	1,126	34,472	0	1,162	61,701
Unfinished Oils ¹	17,395	1,105	34,315	0	855	53,670
Naphthalene and Lighter	1,004	238	6,898	0	254	8,394
Kerosene and Light Gas Oils	217	0	1,217	0	0	1,434
Heavy Gas Oils	13,086	499	5,491	0	357	19,433
Residuum	3,088	368	20,709	0	244	24,409
Motor Gasoline Blending Components	7,546	21	157	0	307	8,031
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	191,978	5,651	17,856	630	6,615	222,729
Finished Motor Gasoline	49,565	526	1,479	227	2,027	53,824
Finished Leaded Motor Gasoline	2,188	3	39	10	110	2,350
Finished Unleaded Motor Gasoline	47,377	523	1,440	217	1,917	51,474
Finished Aviation Gasoline	0	0	0	0	89	89
Naphtha-Type Jet Fuel	0	408	0	0	16	424
Kerosene-Type Jet Fuel	8,050	2,947	435	0	1,448	12,879
Bonded Aircraft Fuel	5,110	2,947	309	0	1,155	9,520
Other	2,940	0	126	0	293	3,359
Kerosene	1,591	0	716	0	0	2,307
Distillate Fuel Oil	39,813	772	2	391	451	41,429
Bonded Ships Bunkers	0	0	0	0	0	0
Other	39,813	772	2	391	451	41,429
Residual Fuel Oil	86,294	440	3,269	0	1,749	91,752
Bonded Ships Bunkers	0	0	0	0	0	0
Other	86,294	440	3,269	0	1,749	91,752
Naphtha < 400 Deg. for Petro. Feed. Use	964	69	9,794	0	146	10,973
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	545	0	214	759
Special Naphthas	146	283	1,145	1	40	1,615
Lubricants	1,599	53	144	0	55	1,851
Waxes	154	69	6	4	28	261
Petroleum Coke	20	0	104	0	92	216
Asphalt and Road Oil	3,551	67	212	7	260	4,097
Miscellaneous Products	231	17	5	0	0	253
Total Imports	395,100	164,626	454,840	11,775	34,168	1,060,509
Total	4,893	6,977	1,465	1,465	1,465	1,465

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(S) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ May 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
Arab OPEC														
Algeria	4,233	663	699	0	0	0	0	457	1,603	0	2,274	5,696	9,929	320
Iraq	9,132	0	0	0	0	0	0	0	0	0	0	0	9,132	295
Kuwait	0	0	838	0	0	0	0	0	0	0	0	838	838	27
Saudi Arabia	26,982	407	3,004	335	877	195	74	192	0	0	0	5,084	32,066	1,034
United Arab Emirates	1,044	0	0	0	0	0	0	0	0	0	0	0	1,044	34
Subtotal Arab OPEC	41,391	1,070	4,541	335	877	195	74	649	1,603	0	2,274	11,618	53,009	1,710
Other OPEC														
Ecuador	356	0	0	0	0	0	0	0	360	0	0	360	716	23
Gabon	291	0	0	0	0	0	0	0	0	0	0	0	291	9
Indonesia	9,227	0	0	0	0	0	0	0	0	0	0	0	9,227	298
Nigeria	15,114	0	0	0	0	0	0	0	0	0	0	0	15,114	488
Venezuela	18,712	0	1,488	0	825	1,060	0	2,098	1,089	0	623	7,183	25,895	835
Subtotal Other OPEC	43,700	0	1,488	0	825	1,060	0	2,098	1,449	0	623	7,543	51,243	1,653
Other														
Angola	8,483	0	0	0	0	0	0	0	353	0	0	353	8,836	285
Argentina	57	0	0	0	0	0	0	0	0	8	0	8	65	2
Australia	1,199	0	0	0	0	0	0	0	243	0	51	294	1,493	48
Bahama Islands	0	0	0	0	0	0	0	0	512	0	0	512	512	17
Belgium	0	0	605	0	0	0	0	0	0	0	2	607	607	20
Benin	306	0	0	0	0	0	0	0	0	0	0	0	306	10
Bermuda	0	0	7	0	0	0	0	0	0	0	0	7	7	(s)
Brazil	0	87	0	0	2,148	0	0	0	497	0	0	2,732	2,732	88
Brunei	188	0	0	0	0	0	0	0	0	0	0	0	188	6
Cameroon	763	0	0	0	0	0	0	0	147	0	0	147	910	29
Canada	21,861	2,881	267	0	1,306	210	3	1,930	1,564	132	525	8,818	30,679	990
China, People's Republic	2,621	1	0	0	156	0	0	0	0	0	67	224	2,845	92
China, Taiwan	0	11	0	0	0	0	0	0	0	0	0	11	11	(s)
Colombia	3,704	0	0	0	0	0	0	0	477	0	0	477	4,181	135
Congo	1,437	0	0	0	0	0	0	0	0	0	0	0	1,437	46
France	0	2	0	0	0	0	0	0	276	0	17	295	295	10
Germany, FD (W)	0	(s)	0	0	0	0	0	0	0	0	3	3	3	(s)
Ghana	0	0	151	0	0	0	0	0	0	0	0	151	151	5
Greece	0	0	0	0	975	0	0	0	200	0	0	1,175	1,175	38
Hong Kong	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	0	(s)
India	0	0	1,050	0	0	0	0	0	0	0	0	0	0	(s)
Israel	0	0	0	0	573	0	0	0	0	8	0	1,050	1,050	34
Italy	0	0	192	0	1,311	132	0	0	0	4	0	1,639	1,639	19
Japan	0	0	0	0	0	10	0	0	0	18	99	117	117	4
Korea, Republic	0	2	0	0	0	0	0	0	0	0	0	12	12	(s)
Mexico	20,527	985	0	157	0	510	0	0	0	0	90	1,742	22,269	718
Netherlands Antilles	0	0	0	0	0	0	0	211	952	0	0	1,163	1,163	38
Netherlands	0	(s)	0	0	1,055	0	0	0	425	0	18	1,498	1,498	48
Norway	2,553	0	213	0	0	0	0	0	0	0	243	456	3,009	97
Oman	839	0	0	0	0	0	0	0	0	0	0	0	839	27
Peru	0	0	0	0	0	0	0	0	971	0	0	971	971	31
Philippines	0	40	0	0	0	0	0	0	0	0	0	40	40	1

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, May 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Portugal	0	0	0	0	0	0	0	0	0	28	0	28	28	1
Puerto Rico	0	0	103	0	0	0	0	0	0	0	531	634	634	20
Romania	0	0	0	1,676	614	0	0	0	297	0	0	2,587	2,587	83
Singapore	0	0	601	0	0	0	0	0	184	0	0	785	785	25
South Africa	0	0	0	0	0	0	0	0	0	0	10	10	10	(s)
Spain	0	38	136	142	669	425	0	0	0	0	268	1,679	1,679	54
Switzerland	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Trinidad and Tobago	1,906	0	0	0	0	201	0	0	1,045	0	0	1,246	3,152	102
Turkey	0	0	0	0	0	0	0	0	0	34	0	34	34	1
United Kingdom	9,969	0	368	0	1,456	1	0	0	0	68	0	1,893	11,862	383
U.S.R.	0	0	385	0	149	0	0	273	0	0	0	807	807	26
Virgin Islands	0	0	2,095	372	763	491	0	1,904	1,903	0	0	7,528	7,528	243
Zaire	765	0	0	0	0	0	0	0	0	0	0	0	0	25
Subtotal Other	77,178	4,049	6,173	2,347	11,175	1,980	3	4,318	10,046	300	1,925	42,315	119,493	3,855
Total Imports	162,269	5,118	12,202	2,682	12,877	3,235	77	7,065	13,098	300	4,822	61,476	223,745	7,218
PAD District I														
Arab OPEC														
Algeria	0	0	695	0	0	0	0	0	1,603	0	0	2,755	2,755	89
Saudi Arabia	0	407	0	335	579	195	74	192	0	0	0	1,782	1,782	57
Subtotal Arab OPEC	0	407	695	335	579	195	74	649	1,603	0	0	4,537	4,537	146
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	360	0	0	360	360	12
Indonesia	561	0	0	0	0	0	0	0	0	0	0	0	0	18
Nigeria	8,673	0	0	0	0	0	0	0	0	0	0	0	0	280
Venezuela	5,858	0	0	0	825	641	0	2,098	1,089	0	623	5,276	11,134	359
Subtotal Other OPEC	15,092	0	0	0	825	641	0	2,098	1,449	0	623	5,636	20,728	669
Other														
Angola	4,689	0	0	0	0	0	0	0	353	0	0	353	5,042	163
Argentina	57	0	0	0	0	0	0	0	0	8	0	8	65	2
Bahama Islands	0	0	0	0	0	0	0	0	512	0	0	512	512	17
Benin	306	0	0	0	0	0	0	0	0	0	0	0	0	10
Brazil	0	0	0	0	1,898	0	0	0	497	0	0	2,395	2,395	77
Cameroon	763	0	0	0	0	0	0	0	147	0	0	147	910	29
Canada	2,247	372	212	0	1,019	93	3	1,564	1,175	9	232	4,679	6,926	223
China, People's Republic	704	0	0	0	0	0	0	0	0	0	67	67	771	25
China, Taiwan	0	6	0	0	0	0	0	0	0	0	0	6	6	(s)
Colombia	397	0	0	0	0	0	0	0	477	0	0	477	874	28
Congo	196	0	0	0	0	0	0	0	0	0	0	0	196	6
France	0	2	0	0	0	0	0	0	276	0	17	295	295	10
Germany, FD (W)	0	(s)	0	0	0	0	0	0	0	0	3	3	3	(s)
Ghana	0	0	133	0	0	0	0	0	0	0	0	133	133	4
Greece	0	0	0	0	975	0	0	0	200	0	0	1,175	1,175	38
Hungary	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ May 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
India	0	0	278	0	0	0	0	0	0	0	0	278	278	9
Israel	0	0	0	0	573	0	0	0	0	0	0	573	573	18
Italy	0	0	192	0	1,311	0	0	0	0	0	0	1,503	1,503	48
Japan	0	0	0	0	0	0	0	0	0	0	3	3	3	(s)
Korea, Republic	0	2	0	0	0	0	0	0	0	0	0	2	2	(s)
Mexico	3,589	0	0	0	0	175	0	0	0	0	0	175	3,764	121
Netherlands Antilles	0	0	0	0	0	0	0	211	952	0	0	1,163	1,163	38
Netherlands	0	(s)	0	0	1,055	0	0	0	425	0	8	1,488	1,488	48
Norway	1,109	0	213	0	0	0	0	0	0	0	243	456	1,565	50
Oman	839	0	0	0	0	0	0	0	0	0	0	0	839	27
Peru	0	0	0	0	0	0	0	0	971	0	0	971	971	31
Puerto Rico	0	0	0	0	0	0	0	0	0	0	426	426	426	14
Romania	0	0	0	1,676	614	0	0	0	297	0	0	2,587	2,587	83
South Africa	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
Spain	0	0	136	142	669	174	0	0	0	0	207	1,328	1,328	43
Trinidad and Tobago	412	0	0	0	0	0	0	0	1,045	0	0	1,045	1,457	47
United Kingdom	3,597	0	0	0	1,456	1	0	0	0	68	0	1,525	5,122	165
U.S.S.R.	0	0	0	0	149	0	0	273	0	0	0	422	422	14
Virgin Islands	0	0	2,095	372	763	491	0	1,904	1,903	0	0	7,528	7,528	243
Zaire	310	0	0	0	0	0	0	0	0	0	0	0	310	10
Subtotal Other	19,215	382	3,259	2,190	10,482	934	3	3,952	9,230	85	1,211	31,727	50,942	1,643
Total Imports	34,307	789	3,954	2,525	11,886	1,770	77	6,699	12,282	85	1,834	41,900	76,207	2,458
PAD District II														
Arab OPEC														
Algeria	326	0	0	0	0	0	0	0	0	0	0	0	326	11
Iraq	902	0	0	0	0	0	0	0	0	0	0	0	902	29
Saudi Arabia	4,978	0	0	0	0	0	0	0	0	0	0	0	4,978	161
Subtotal Arab OPEC	6,206	0	0	0	0	0	0	0	0	0	0	0	6,206	200
Other OPEC														
Indonesia	659	0	0	0	0	0	0	0	0	0	0	0	659	21
Nigeria	2,000	0	0	0	0	0	0	0	0	0	0	0	2,000	65
Venezuela	1,067	0	396	0	0	305	0	0	0	0	0	701	1,768	57
Subtotal Other OPEC	3,726	0	396	0	0	305	0	0	0	0	0	701	4,427	143
Other														
Canada	16,244	1,849	0	0	86	100	0	102	39	72	62	2,310	18,554	599
Congo	480	0	0	0	0	0	0	0	0	0	0	0	480	15
Italy	0	0	0	0	0	132	0	0	0	0	0	132	132	4
Mexico	2,663	0	0	0	0	335	0	0	0	0	0	335	2,998	97
Norway	447	0	0	0	0	0	0	0	0	0	0	0	447	14
Puerto Rico	0	0	103	0	0	0	0	0	0	0	0	103	103	3
South Africa	0	0	0	0	0	0	0	0	0	0	6	6	6	(s)
Spain	0	0	0	0	0	251	0	0	0	0	61	312	312	10
Trinidad and Tobago	0	0	0	0	0	201	0	0	0	0	0	201	201	6

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, May 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District II (continued)														
Other (continued)														
United Kingdom	1,683	0	368	0	0	0	0	0	0	0	0	368	2,051	66
Zaire	321	0	0	0	0	0	0	0	0	0	0	0	321	10
Subtotal Other	21,838	1,849	471	0	86	1,019	0	102	39	72	129	3,767	25,605	826
Total Imports	31,770	1,849	867	0	86	1,324	0	102	39	72	129	4,468	36,238	1,169
PAD District III														
Arab OPEC														
Algeria	3,907	663	4	0	0	0	0	0	0	0	2,274	2,941	6,848	221
Iraq	8,230	0	0	0	0	0	0	0	0	0	0	0	8,230	265
Kuwait	0	0	838	0	0	0	0	0	0	0	0	838	838	27
Saudi Arabia	22,004	0	3,004	0	0	0	0	0	0	0	0	3,004	25,008	807
United Arab Emirates	594	0	0	0	0	0	0	0	0	0	0	0	594	19
Subtotal Arab OPEC	34,735	663	3,846	0	0	0	0	0	0	0	2,274	6,783	41,518	1,339
Other OPEC														
Ecuador	356	0	0	0	0	0	0	0	0	0	0	0	356	11
Gabon	291	0	0	0	0	0	0	0	0	0	0	0	291	9
Indonesia	2,661	0	0	0	0	0	0	0	0	0	0	0	2,661	86
Nigeria	4,441	0	0	0	0	0	0	0	0	0	0	0	4,441	143
Venezuela	11,787	0	1,092	0	0	0	0	0	0	0	0	1,092	12,879	415
Subtotal Other OPEC	19,536	0	1,092	0	0	0	0	0	0	0	0	1,092	20,628	665
Other														
Angola	3,794	0	0	0	0	0	0	0	0	0	0	0	3,794	122
Australia	569	0	0	0	0	0	0	0	0	0	51	51	620	20
Belgium	0	0	605	0	0	0	0	0	0	0	2	607	607	20
Bermuda	0	0	7	0	0	0	0	0	0	0	0	7	7	(s)
Brazil	0	87	0	0	250	0	0	0	0	0	0	337	337	11
Canada	567	0	55	0	0	0	0	0	350	41	134	580	1,147	37
China, People's Republic	1,472	0	0	0	0	0	0	0	0	0	0	0	1,472	47
Colombia	3,307	0	0	0	0	0	0	0	0	0	0	0	3,307	107
Congo	761	0	0	0	0	0	0	0	0	0	0	0	761	25
Ghana	0	0	18	0	0	0	0	0	0	0	0	18	18	1
India	0	0	772	0	0	0	0	0	0	0	0	772	772	25
Israel	0	0	0	0	0	0	0	0	0	8	0	8	8	(s)
Italy	0	0	0	0	0	0	0	0	0	4	0	4	4	(s)
Japan	0	0	0	0	0	0	0	0	0	18	60	78	78	3
Mexico	14,275	985	0	157	0	0	0	0	0	0	10	1,152	15,427	498
Netherlands	0	0	0	0	0	0	0	0	0	0	10	10	10	(s)
Norway	997	0	0	0	0	0	0	0	0	0	0	0	997	32
Portugal	0	0	0	0	0	0	0	0	0	28	0	28	28	1
Puerto Rico	0	0	0	0	0	0	0	0	0	0	105	105	105	3
Spain	0	38	0	0	0	0	0	0	0	0	0	38	38	1
Trinidad and Tobago	1,494	0	0	0	0	0	0	0	0	0	0	0	1,494	48
Turkey	0	0	0	0	0	0	0	0	0	34	0	34	34	1
United Kingdom	4,689	0	0	0	0	0	0	0	0	0	0	0	4,689	151

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, ¹ May 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District III (continued)														
Other (continued)														
U.S.S.R.	0	0	385	0	0	0	0	0	0	0	0	385	385	12
Zaire	134	0	0	0	0	0	0	0	0	0	0	0	134	4
Subtotal Other	32,059	1,111	1,842	157	250	0	0	0	350	133	372	4,215	36,274	1,170
Total Imports	86,330	1,774	6,780	157	250	0	0	0	350	133	2,646	12,090	98,420	3,175
PAD District IV														
Other														
Canada	2,096	351	0	0	45	0	0	71	0	0	7	474	2,570	83
China, People's Republic ..	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Subtotal Other	2,096	352	0	0	45	0	0	71	0	0	7	475	2,571	83
Total Imports	2,096	352	0	0	45	0	0	71	0	0	7	475	2,571	83
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	298	0	0	0	0	0	0	298	298	10
United Arab Emirates	450	0	0	0	0	0	0	0	0	0	0	0	450	15
Subtotal Arab OPEC	450	0	0	0	298	0	0	0	0	0	0	298	748	24
Other OPEC														
Indonesia	5,346	0	0	0	0	0	0	0	0	0	0	0	5,346	172
Venezuela	0	0	0	0	0	114	0	0	0	0	0	114	114	4
Subtotal Other OPEC	5,346	0	0	0	0	114	0	0	0	0	0	114	5,460	176
Other														
Australia	630	0	0	0	0	0	0	0	243	0	0	243	873	28
Brunei	188	0	0	0	0	0	0	0	0	0	0	0	188	6
Canada	707	309	0	0	156	17	0	193	0	10	90	775	1,482	48
China, People's Republic ...	445	0	0	0	156	0	0	0	0	0	0	156	601	19
China, Taiwan	0	6	0	0	0	0	0	0	0	0	0	6	6	(s)
Hong Kong	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Japan	0	0	0	0	0	0	0	0	0	0	36	36	36	1
Korea, Republic	0	0	0	0	0	10	0	0	0	0	80	10	10	(s)
Mexico	0	0	0	0	0	0	0	0	0	0	80	80	80	3
Philippines	0	40	0	0	0	0	0	0	0	0	0	40	40	1
Singapore	0	0	601	0	0	0	0	0	184	0	0	785	785	25
Switzerland	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Subtotal Other	1,970	355	601	0	312	27	0	193	427	10	206	2,131	4,101	132
Total Imports	7,766	355	601	0	610	141	0	193	427	10	206	2,543	10,309	333

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - May 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	19,335	4,211	4,021	0	0	289	0	1,682	10,195	0	8,546	28,944	48,279	318
Iraq	30,292	0	0	0	0	0	0	0	0	0	0	0	30,292	199
Kuwait	10,291	0	2,364	0	0	0	0	0	0	0	0	2,364	12,655	83
Neutral Zone ⁴	3,274	0	0	0	0	0	0	0	0	0	0	0	3,274	22
Saudi Arabia	130,993	704	13,088	335	2,874	917	74	2,294	0	0	660	20,946	151,939	1,000
United Arab Emirates	5,693	0	0	0	0	592	0	342	0	0	213	1,147	6,840	45
Subtotal Arab OPEC	199,878	4,915	19,473	335	2,874	1,798	74	4,318	10,195	0	9,419	53,401	253,279	1,666
Other OPEC														
Ecuador	4,555	0	0	0	0	0	0	0	2,565	0	0	2,565	7,120	47
Gabon	3,047	0	0	0	0	0	0	0	0	0	0	0	3,047	20
Indonesia	25,518	0	1,176	0	0	0	0	0	968	0	214	2,358	27,876	183
Iran	5,25	0	0	0	0	0	0	0	0	0	0	0	5,25	5 (s)
Nigeria	76,677	0	318	0	0	0	0	256	1,276	0	0	1,850	78,527	517
Venezuela	71,503	1,337	9,157	159	3,442	4,246	0	10,213	19,229	2	2,859	50,644	122,147	804
Subtotal Other OPEC	181,325	1,337	10,651	159	3,442	4,246	0	10,469	24,038	2	3,073	57,417	238,742	1,571
Other														
Angola	28,815	0	0	0	0	0	0	0	1,438	0	0	1,438	30,253	199
Argentina	57	0	0	0	223	0	0	0	1,006	166	17	1,412	1,469	10
Australia	7,742	0	0	0	0	0	0	0	642	0	131	773	8,515	56
Bahama Islands	0	0	0	0	0	0	0	8	5,479	0	0	5,487	5,487	36
Bahrain	0	0	275	0	0	0	0	0	275	0	0	275	275	2
Belgium	0	0	1,508	0	1,368	0	0	0	893	0	7	3,776	3,776	25
Benin	643	0	0	0	0	0	0	0	0	0	0	0	643	4
Bermuda	0	0	7	0	0	0	0	0	0	0	0	7	7	(s)
Brazil	0	362	15	0	8,832	0	219	1,065	3,033	1	43	13,570	13,570	89
Brunei	338	0	0	0	0	0	0	0	0	0	0	0	338	2
Cameroon	5,272	0	0	0	0	0	0	0	816	0	0	816	6,088	40
Canada	102,894	19,661	1,008	21	6,648	1,734	138	9,809	5,069	559	1,445	46,092	148,986	980
China, People's Republic	13,184	1	0	307	156	0	0	0	0	0	168	632	13,816	91
China, Taiwan	0	32	0	0	0	0	0	0	0	0	27	59	59	(s)
Colombia	17,286	0	0	0	0	0	0	0	4,586	0	0	4,586	21,872	144
Congo	4,010	0	0	0	0	0	0	0	271	0	0	271	4,281	28
Egypt	2,859	0	0	0	0	0	0	0	0	0	7	7	2,866	19
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	2
France	0	36	0	0	1,006	0	0	0	447	0	92	1,581	1,581	10
Germany, DR (E)	0	0	0	0	0	0	0	656	0	0	0	656	656	4
Germany, FD (W)	0	9	0	0	310	0	0	0	0	4	44	367	367	2
Ghana	0	0	151	0	0	0	0	0	298	0	0	449	449	3
Greece	0	0	239	0	1,483	0	0	134	1,070	0	0	2,926	2,926	19
Guatemala	200	0	0	0	0	0	0	0	0	0	0	0	200	1
Hong Kong	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Hungary	0	0	0	0	0	0	0	0	0	0	4	4	4	23
India	0	0	2,808	0	0	0	0	0	0	682	0	3,490	3,490	1
Ireland	0	0	174	0	0	0	0	0	0	0	0	174	174	1
Israel	0	0	0	0	573	0	0	0	0	23	0	596	596	4
Italy	1,243	1	2,651	0	5,669	336	0	755	873	18	10	10,313	11,556	76
Japan	0	19	0	0	0	10	0	21	0	22	264	326	326	2
Korea, Republic	0	6	0	0	0	0	0	0	0	0	74	90	90	1

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - May 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	210	1
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	3
Mauritania	0	0	0	0	0	0	0	0	245	0	0	0	245	2
Mexico	99,853	3,992	0	157	417	1,827	0	943	1,303	0	1,155	9,794	109,647	721
Netherlands Antilles	0	0	0	0	499	0	0	450	3,903	0	0	4,852	4,852	32
Netherlands	0	6	58	0	4,835	0	151	1,182	1,317	8	158	7,715	7,715	51
Norway	7,231	0	472	0	0	0	0	0	61	0	351	884	8,115	53
Oman	839	0	429	0	0	0	0	0	0	0	0	429	1,268	8
Peru	0	0	0	0	0	0	0	0	5,240	0	0	5,240	5,240	34
Philippines	0	40	0	0	0	0	0	0	0	0	0	40	40	(s)
Portugal	0	0	0	0	0	0	0	0	0	28	0	0	28	(s)
Puerto Rico	0	0	761	0	0	0	0	0	0	0	2,772	3,533	3,533	23
Romania	0	0	601	5,359	2,685	0	0	444	297	0	0	8,785	8,785	58
Singapore	0	0	0	0	0	25	0	0	1,212	0	0	1,838	1,838	12
South Africa	0	0	0	0	0	0	0	0	0	0	44	44	44	(s)
Spain	0	40	1,368	142	3,939	1,033	0	372	621	0	798	7,941	7,941	52
Sweden	0	(s)	0	0	0	0	0	0	579	0	110	1,062	1,062	7
Switzerland	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Syria	301	0	0	0	0	0	0	0	194	0	0	194	495	3
Trinidad and Tobago	10,587	0	0	0	138	431	115	201	2,828	0	0	3,713	14,300	94
Tunisia	0	0	220	0	0	0	0	0	0	0	0	0	220	1
Turkey	0	0	790	0	0	0	0	0	0	34	47	871	871	6
United Kingdom	53,907	4	1,169	0	4,535	208	0	1,008	1,327	68	98	8,418	62,325	410
U.S.S.R.	0	841	0	149	0	0	0	3,128	27	0	0	4,145	4,145	27
Virgin Islands	0	0	8,001	1,551	3,751	1,655	1,610	6,256	12,444	0	0	35,268	35,268	232
Zaire	4,867	0	0	0	0	0	0	0	0	0	0	0	4,867	32
Subtotal Other	362,552	24,211	23,546	7,537	47,508	7,259	2,233	26,642	57,519	1,613	7,868	205,936	568,488	3,740
Total Imports	743,755	30,463	53,670	8,031	53,824	13,303	2,307	41,429	91,752	1,615	20,360	316,754	1,060,509	6,977
PAD District I														
Arab OPEC														
Algeria	0	2,810	2,955	0	0	289	0	1,682	8,739	0	0	16,475	16,475	108
Neutral Zone ⁴	650	0	0	0	0	0	0	0	0	0	0	0	650	4
Saudi Arabia	12,255	704	355	335	2,320	651	74	2,294	0	0	0	6,733	18,988	125
United Arab Emirates	769	0	0	0	0	0	0	342	0	0	0	342	1,111	7
Subtotal Arab OPEC	13,674	3,514	3,310	335	2,320	940	74	4,318	8,739	0	0	23,550	37,224	245
Other OPEC														
Ecuador	3,039	0	0	0	0	0	0	0	2,565	0	0	2,565	5,604	37
Gabon	1,995	0	0	0	0	0	0	0	0	0	0	0	1,995	13
Indonesia	561	0	0	0	0	0	0	0	968	0	0	968	1,529	10
Nigeria	44,877	0	0	0	0	0	0	256	1,276	0	0	1,532	46,409	305
Venezuela	17,651	816	1,945	159	2,447	2,849	0	10,211	19,229	2	2,585	40,243	57,894	381
Subtotal Other OPEC	68,123	816	1,945	159	2,447	2,849	0	10,467	24,038	2	2,585	45,308	113,431	746

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - May 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I (continued)														
Other	16,540	0	0	0	0	0	0	0	1,438	0	0	1,438	17,978	118
Angola	57	0	0	0	223	0	0	0	1,006	23	0	1,252	1,309	9
Argentina	551	0	0	0	0	0	0	0	182	0	80	262	813	5
Australia	0	0	0	0	0	0	0	8	5,252	0	0	5,260	5,260	35
Bahama Islands	0	0	329	0	1,368	0	0	0	893	0	0	2,590	2,590	17
Belgium	643	0	0	0	0	0	0	0	0	0	0	0	643	4
Benin	0	0	0	0	0	0	0	0	3,033	0	43	12,479	12,479	82
Brazil	0	15	0	0	8,104	0	219	1,065	816	0	0	816	4,585	30
Cameroon	3,769	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	8,287	2,189	564	0	5,200	986	138	8,216	3,851	35	492	21,671	29,958	197
China, People's Republic	5,724	0	0	0	0	0	0	0	0	0	98	98	5,822	38
China, Taiwan	0	18	0	0	0	0	0	0	0	0	0	0	18	(s)
Colombia	5,456	0	0	0	0	0	0	0	4,586	0	0	4,586	10,042	66
Congo	476	0	0	0	0	0	0	0	271	0	0	271	747	5
Egypt	2,859	0	0	0	0	0	0	0	0	0	3	3	2,862	19
Finland	0	0	0	0	292	0	0	0	0	0	0	292	292	2
France	0	2	0	0	1,006	0	0	0	447	0	41	1,496	1,496	10
Germany, DR (E)	0	0	0	0	0	0	0	656	0	0	0	656	656	4
Germany, FD (W)	0	9	0	0	310	0	0	0	0	0	11	330	330	2
Ghana	0	133	0	0	0	0	0	0	298	0	0	431	431	3
Greece	0	0	0	0	1,483	0	0	134	1,070	0	0	2,687	2,687	18
Hungary	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
India	0	0	278	0	573	0	0	0	0	0	0	278	278	2
Israel	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Italy	892	1	1,380	0	5,669	0	0	755	873	14	10	8,702	9,594	63
Japan	0	1	0	0	0	0	0	0	0	4	44	49	49	(s)
Korea, Republic	0	4	0	0	0	0	0	0	0	0	0	0	0	(s)
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	1
Mauritania	0	0	0	0	0	0	0	0	245	0	0	245	245	2
Mexico	9,698	0	0	0	309	486	0	943	1,033	0	964	3,735	13,433	88
Netherlands Antilles	0	0	0	0	230	0	0	450	3,903	0	0	4,583	4,583	30
Netherlands	0	3	0	0	4,835	0	151	1,182	1,317	0	28	7,516	7,516	49
Norway	3,325	0	213	0	0	0	0	0	61	0	351	625	3,950	26
Oman	839	0	0	0	0	0	0	0	0	0	0	0	839	6
Peru	0	0	0	0	0	0	0	0	5,240	0	0	5,240	5,240	34
Puerto Rico	0	0	658	0	0	0	0	0	0	0	2,289	2,947	2,947	19
Romania	0	0	0	0	2,685	0	0	0	297	0	0	8,785	8,785	58
South Africa	0	0	565	0	3,938	695	0	444	0	0	20	20	20	(s)
Spain	0	2	0	0	0	0	0	0	621	0	737	6,701	6,701	44
Sweden	0	1	0	0	0	0	0	372	579	0	0	952	952	6
Switzerland	0	(s)	0	0	0	0	0	0	0	0	2	2	2	(s)
Syria	301	0	0	0	0	0	0	0	194	0	0	194	495	3
Trinidad and Tobago	2,046	0	0	0	138	230	115	201	2,828	0	0	3,512	5,558	37
United Kingdom	24,370	(s)	4	0	4,535	208	0	1,008	712	68	32	6,568	30,938	204
U.S.S.R.	0	0	0	0	149	0	0	3,128	27	0	0	3,304	3,304	22
Virgin Islands	0	0	8,001	1,551	3,751	1,655	894	6,256	12,444	0	0	34,552	34,552	227
Zaire	2,677	0	0	0	0	0	0	0	0	0	0	0	2,677	18
Subtotal Other	88,510	2,228	12,140	7,052	44,798	4,262	1,517	25,028	53,517	144	5,249	155,934	244,444	1,608
Total Imports	170,307	6,559	17,395	7,546	49,565	8,050	1,591	39,813	86,294	146	7,834	224,793	395,100	2,599

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - May 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District II														
Arab OPEC														
Algeria	2,299	0	0	0	0	0	0	0	0	0	0	0	2,299	15
Iraq	5,417	0	0	0	0	0	0	0	0	0	0	0	5,417	36
Kuwait	656	0	0	0	0	0	0	0	0	0	0	0	656	4
Saudi Arabia	20,567	0	0	0	0	0	0	0	0	0	0	0	20,567	135
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	5
Subtotal Arab OPEC	29,116	0	0	0	0	592	0	0	0	0	0	592	29,708	195
Other OPEC														
Ecuador	779	0	0	0	0	0	0	0	0	0	0	0	779	5
Indonesia	659	0	0	0	0	0	0	0	0	0	0	0	659	4
Nigeria	16,213	0	0	0	0	0	0	0	0	0	0	0	16,213	107
Venezuela	1,793	0	634	0	0	878	0	0	0	0	0	1,512	3,305	22
Subtotal Other OPEC	19,444	0	634	0	0	878	0	0	0	0	0	1,512	20,956	138
Other														
Canada	79,700	13,807	0	21	526	408	0	772	440	283	366	16,623	96,323	634
Colombia	472	0	0	0	0	0	0	0	0	0	0	0	472	3
Congo	480	0	0	0	0	0	0	0	0	0	0	0	480	3
France	0	34	0	0	0	0	0	0	0	0	0	34	34	(s)
Italy	0	0	0	0	0	132	0	0	0	0	0	132	132	1
Japan	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Mexico	8,663	0	0	0	0	892	0	0	0	0	0	892	9,555	63
Norway	447	0	0	0	0	0	0	0	0	0	0	0	447	3
Puerto Rico	0	0	103	0	0	0	0	0	0	0	0	103	103	1
South Africa	0	0	0	0	0	0	0	0	0	0	22	22	22	(s)
Spain	0	0	0	0	0	251	0	0	0	0	61	312	312	2
Trinidad and Tobago	176	0	0	0	0	201	0	0	0	0	0	201	377	2
United Kingdom	5,011	4	368	0	0	0	0	0	0	0	0	372	5,383	35
Zaire	321	0	0	0	0	0	0	0	0	0	0	0	321	2
Subtotal Other	95,270	13,845	471	21	526	1,884	0	772	440	283	449	18,691	113,961	750
Total Imports	143,830	13,845	1,105	21	526	3,355	0	772	440	283	449	20,796	164,626	1,083
PAD District III														
Arab OPEC														
Algeria	17,036	1,401	1,066	0	0	0	0	0	1,456	0	8,546	12,469	29,505	194
Iraq	24,875	0	0	0	0	0	0	0	0	0	0	0	24,875	164
Kuwait	9,635	0	2,364	0	0	0	0	0	0	0	0	2,364	11,999	79
Neutral Zone ⁴	2,624	0	0	0	0	0	0	0	0	0	0	0	2,624	17
Saudi Arabia	98,171	0	12,733	0	0	0	0	0	0	0	660	13,393	111,564	734
United Arab Emirates	4,297	0	0	0	0	0	0	0	0	0	213	213	4,510	30
Subtotal Arab OPEC	156,638	1,401	16,163	0	0	0	0	0	1,456	0	9,419	28,439	185,077	1,218
Other OPEC														
Ecuador	737	0	0	0	0	0	0	0	0	0	0	0	737	5
Gabon	1,052	0	0	0	0	0	0	0	0	0	0	0	1,052	7
Indonesia	7,359	0	922	0	0	0	0	0	0	0	0	922	8,281	54
Iran	5 25	0	0	0	0	0	0	0	0	0	0	0	5 25	5 (s)
Nigeria	15,587	0	318	0	0	0	0	0	0	0	0	318	15,905	105

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - May 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
Other OPEC														
Venezuela	52,059	520	6,578	0	995	0	0	2	0	0	133	8,228	60,287	397
Subtotal Other OPEC	76,819	520	7,818	0	995	0	0	2	0	0	133	9,468	86,287	568
Other														
Angola	12,275	0	0	0	0	0	0	0	0	0	0	0	12,275	81
Argentina	0	0	0	0	0	0	0	0	0	143	17	160	160	1
Australia	3,540	0	0	0	0	0	0	0	0	0	51	51	3,591	24
Bahama Islands	0	0	0	0	0	0	0	0	227	0	0	227	227	1
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	2
Belgium	0	0	1,179	0	0	0	0	0	0	0	7	1,186	1,186	8
Bermuda	0	0	7	0	0	0	0	0	0	0	0	7	7	(s)
Brazil	0	362	0	0	483	0	0	0	0	1	0	846	846	6
Cameroon	1,503	0	0	0	0	0	0	0	0	0	0	0	1,503	10
Canada	3,510	1	444	0	0	0	0	0	701	200	236	1,582	5,092	33
China, People's Republic	6,595	0	0	0	0	0	0	0	0	0	70	70	6,665	44
Colombia	11,358	0	0	0	0	0	0	0	0	0	0	0	11,358	75
Congo	3,054	0	0	0	0	0	0	0	0	0	0	0	3,054	20
Egypt	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
France	0	0	0	0	0	0	0	0	0	0	51	51	51	(s)
Germany, FD (W)	0	0	0	0	0	0	0	0	0	4	33	37	37	(s)
Ghana	0	0	18	0	0	0	0	0	0	0	0	18	18	(s)
Greece	0	0	239	0	0	0	0	0	0	0	0	239	239	2
Guatemala	200	0	0	0	0	0	0	0	0	0	0	0	200	1
India	0	0	2,530	0	0	0	0	0	0	682	0	3,212	3,212	21
Ireland	0	0	174	0	0	0	0	0	0	0	0	174	174	1
Israel	0	0	1,271	0	0	0	0	0	0	23	0	23	23	(s)
Italy	351	0	0	0	0	0	0	0	0	4	0	1,275	1,626	11
Japan	0	0	0	0	0	0	0	0	0	18	120	138	138	1
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	3
Mexico	81,492	3,992	0	157	0	349	0	0	270	0	52	4,820	86,312	568
Netherlands	0	0	58	0	0	0	0	0	0	8	130	196	196	1
Norway	3,459	0	259	0	0	0	0	0	0	0	0	259	3,718	24
Oman	0	0	429	0	0	0	0	0	0	0	0	429	429	3
Portugal	0	0	0	0	0	0	0	0	0	28	0	28	28	(s)
Puerto Rico	0	0	0	0	0	0	0	0	0	0	483	483	483	3
Spain	0	38	803	0	1	86	0	0	0	0	110	110	110	1
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	0	55
Trinidad and Tobago	8,365	0	0	0	0	0	0	0	0	0	0	0	8,365	1
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	1
Turkey	0	0	790	0	0	0	0	0	0	34	47	871	871	6
United Kingdom	24,526	0	797	0	0	0	0	0	615	0	66	1,478	26,004	171
U.S.S.R.	0	0	841	0	0	0	0	0	0	0	0	841	841	6
Virgin Islands	0	0	0	0	0	0	716	0	0	0	0	716	716	5
Zaire	1,869	0	0	0	0	0	0	0	0	0	0	0	1,869	12
Subtotal Other	162,521	4,394	10,334	157	484	435	716	0	1,813	1,145	1,477	20,955	183,476	1,207
Total Imports	395,978	6,315	34,315	157	1,479	435	716	2	3,269	1,145	11,029	58,862	454,840	2,992

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - May 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District IV														
Other														
Canada	8,754	2,238	0	0	227	0	0	391	0	1	164	3,021	11,775	77
China, People's Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Subtotal Other	8,754	2,238	0	0	227	0	0	391	0	1	164	3,021	11,775	77
Total Imports	8,754	2,238	0	0	227	0	0	391	0	1	164	3,021	11,775	77
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	554	266	0	0	0	0	0	820	820	5
United Arab Emirates	450	0	0	0	0	0	0	0	0	0	0	0	450	3
Subtotal Arab OPEC	450	0	0	0	554	266	0	0	0	0	0	820	1,270	8
Other OPEC														
Indonesia	16,939	0	254	0	0	0	0	0	0	0	214	468	17,407	115
Venezuela	0	0	0	0	0	519	0	0	0	0	141	660	660	4
Subtotal Other OPEC	16,939	0	254	0	0	519	0	0	0	0	355	1,128	18,067	119
Other														
Australia	3,651	0	0	0	0	0	0	0	460	0	0	460	4,111	27
Brazil	0	0	0	0	245	0	0	0	0	0	0	245	245	2
Brunei	338	0	0	0	0	0	0	0	0	0	0	338	338	2
Canada	2,643	1,427	0	0	695	339	0	430	77	40	187	3,196	5,839	38
China, People's Republic	865	0	0	307	156	0	0	0	0	0	0	463	1,328	9
China, Taiwan	0	14	0	0	0	0	0	0	0	0	27	41	41	(s)
Hong Kong	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Italy	0	0	0	0	0	204	0	0	0	0	0	204	204	1
Japan	0	18	0	0	0	0	0	21	0	0	100	139	139	1
Korea, Republic	0	3	0	0	0	10	0	0	0	0	74	87	87	1
Mexico	0	0	0	0	108	100	0	0	0	0	139	347	347	2
Netherlands Antilles	0	0	0	0	269	0	0	0	0	0	0	269	269	2
Netherlands	0	3	0	0	0	0	0	0	0	0	0	3	3	(s)
Philippines	0	40	0	0	0	0	0	0	0	0	0	40	40	(s)
Singapore	0	0	601	0	0	25	0	0	1,212	0	0	1,838	1,838	12
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Switzerland	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Subtotal Other	7,497	1,506	601	307	1,473	679	0	451	1,749	40	529	7,334	14,831	98
Total Imports	24,886	1,506	855	307	2,027	1,464	0	451	1,749	40	884	9,282	34,168	225

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands.

This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, May 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ¹	0	142	0	0	4,242	4,384	141
Natural Gas Liquids	22	548	395	31	218	1,214	39
Pentanes Plus	0	65	0	0	0	65	2
Liquefied Petroleum Gases	22	484	395	31	218	1,149	37
Ethane	(s)	129	1	0	(s)	130	4
Propane	13	162	349	12	93	630	20
Normal Butane	9	128	45	19	125	325	10
Isobutane	0	65	0	0	0	65	2
Finished Motor Gasoline	18	9	821	0	5	853	28
Naphtha-Type Jet Fuel	3	0	0	(s)	80	83	3
Kerosene-Type Jet Fuel	8	0	108	0	3	119	4
Kerosene	12	1	0	0	0	13	(s)
Distillate Fuel Oil	19	60	1,174	(s)	1,041	2,295	74
Residual Fuel Oil	6	0	2,902	0	5,234	8,142	263
Naphtha < 400 Deg. for Petro. Feed. Use	36	21	67	2	16	142	5
Other Oils > 400 Deg. for Petro. Feed. Use	8	35	256	0	90	389	13
Special Naphthas	12	3	45	0	267	327	11
Lubricants	172	57	381	3	121	734	24
Waxes	4	31	24	0	7	65	2
Petroleum Coke	34	190	3,895	0	2,389	6,508	210
Asphalt	2	2	(s)	(s)	3	7	(s)
Miscellaneous Products	38	2	9	(s)	4	53	2
Total Product Exports	394	959	10,077	37	9,478	20,944	676
Total Exports	394	1,100	10,077	37	13,720	25,328	817

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January - May 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Total	Daily Average
	I	II	III	IV	V		
Crude Oil (including lease condensate) 1	0	2,050	0	0	23,481	25,531	168
Natural Gas Liquids	160	2,573	2,756	203	903	6,594	43
Pentanes Plus	0	305	0	0	0	305	2
Liquefied Petroleum Gases	160	2,268	2,756	203	903	6,289	41
Ethane	1	611	1	0	(s)	614	4
Propane	92	666	2,591	81	384	3,815	25
Normal Butane	67	686	163	122	519	1,556	10
Isobutane	0	305	0	0	0	305	2
Finished Motor Gasoline	95	160	1,843	1	647	2,745	18
Naphtha-Type Jet Fuel	8	0	12	1	80	101	1
Kerosene-Type Jet Fuel	225	2	4,220	0	1,187	5,634	37
Kerosene	50	123	6	1	2	181	1
Distillate Fuel Oil	82	135	5,342	(s)	5,950	11,508	76
Residual Fuel Oil	16	0	9,341	0	21,541	30,898	203
Naphtha < 400 Deg. for Petro. Feed. Use	228	106	241	5	62	642	4
Other Oils > 400 Deg. for Petro. Feed. Use	16	135	1,531	0	904	2,586	17
Special Naphthas	57	38	333	1	282	711	5
Lubricants	1,033	233	1,627	18	698	3,609	24
Waxes	23	38	118	(s)	42	220	1
Petroleum Coke	991	404	19,874	(s)	11,902	33,171	218
Asphalt	6	4	6	3	8	27	(s)
Miscellaneous Products	157	13	99	(s)	25	294	2
Total Product Exports	3,145	3,965	47,347	233	44,232	98,922	651
Total Exports	3,145	6,015	47,347	233	67,713	124,453	819

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, May 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	1	1	(s)	0	0	(s)	2	(s)
Australia	0	(s)	0	0	223	413	11	11	0	175	(s)	3	836	27
Bahamas	0	0	118	105	137	170	0	4	0	0	0	(s)	535	17
Bahrain	0	(s)	0	0	0	0	0	0	0	64	0	(s)	64	2
Belgium & Luxembourg	0	0	0	0	0	0	(s)	13	(s)	463	(s)	2	478	15
Brazil	0	0	0	0	0	0	0	17	(s)	0	0	(s)	18	1
Cameroon	0	0	0	0	0	0	0	0	0	38	0	0	38	1
Canada	142	526	30	95	147	602	10	113	33	394	2	143	2,238	72
Chile	0	1	0	0	0	0	3	38	(s)	0	(s)	1	42	1
China, Taiwan	0	2	0	0	0	1,085	0	46	(s)	2	(s)	9	1,145	37
Colombia	0	0	0	0	0	0	0	1	(s)	0	0	(s)	2	(s)
Costa Rica	0	0	0	0	0	0	2	9	(s)	19	0	4	34	1
Denmark	0	0	0	0	0	0	0	0	(s)	118	0	4	122	4
Dominican Republic	0	1	0	0	(s)	0	(s)	1	0	0	0	(s)	1	(s)
Ecuador	0	0	0	0	0	0	(s)	10	(s)	0	(s)	0	11	(s)
Egypt	0	0	0	0	0	0	0	(s)	0	135	0	0	136	4
El Salvador	0	0	0	0	0	0	0	4	0	0	0	1	5	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
France	0	0	0	0	0	0	0	2	1	108	0	60	170	5
French Pacific Isl	0	0	0	0	0	35	0	(s)	0	0	0	0	35	1
Ghana	0	0	0	0	0	0	0	0	0	44	0	0	44	1
Greece	0	2	0	0	0	0	0	1	0	0	0	0	3	(s)
Guatemala	0	43	0	0	(s)	0	0	16	0	0	0	2	61	2
Guinea	0	0	0	0	0	0	0	0	0	0	0	(s)	1	(s)
Honduras	0	16	0	0	0	0	1	11	(s)	0	0	3	31	1
Hong Kong	0	1	0	0	0	0	0	32	(s)	0	0	0	2	(s)
India	0	0	0	0	0	0	0	0	(s)	0	(s)	1	34	1
Indonesia	0	0	0	0	0	0	0	1	(s)	0	0	0	1	(s)
Israel	0	(s)	16	0	0	0	0	12	0	(s)	0	0	28	1
Italy	0	0	0	0	0	0	0	2	1	702	0	181	886	29
Ivory Coast	0	0	0	0	0	0	0	(s)	(s)	0	0	0	(s)	(s)
Jamaica	0	47	0	0	0	220	(s)	1	(s)	0	0	0	269	9
Japan	0	1	551	0	1,065	673	276	31	3	1,112	0	48	3,761	121
Jordan	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Korea, Republic	0	6	0	0	0	209	(s)	6	(s)	118	0	86	425	14
Kuwait	0	(s)	0	0	0	0	0	1	0	0	0	0	2	(s)
Lebanon	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	2	1	0	0	2	4	(s)
Mexico	0	450	1	0	0	1,341	11	114	17	100	0	16	2,050	66
Netherlands	0	0	10	0	0	0	(s)	29	1	965	(s)	27	1,031	33
Netherlands Antilles	0	0	0	0	65	597	0	2	0	0	0	1	664	21
New Zealand	0	(s)	0	0	0	0	4	1	(s)	(s)	1	1	7	(s)
Nigeria	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Norway	0	0	0	0	(s)	0	0	0	0	0	0	0	(s)	(s)
Pacific Trust Terr.	0	0	0	0	0	0	0	2	0	0	0	0	1	1
Panama	0	0	98	0	229	234	0	2	0	0	0	1	565	18
Peru	0	0	0	0	226	0	(s)	28	(s)	0	0	(s)	255	8
Philippines	0	0	0	0	0	0	1	10	(s)	0	0	1	12	(s)
Puerto Rico	746	35	3	0	0	1	(s)	35	1	0	0	14	836	27
Rep. of South Africa	0	0	0	0	0	0	0	1	(s)	0	(s)	7	9	(s)
Saudi Arabia	0	10	0	0	0	0	0	7	(s)	0	0	5	22	1
Singapore	0	1	0	0	0	1,598	(s)	8	(s)	(s)	0	2	1,610	52

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, May 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Spain	0	0	0	0	202	959	(s)	1	4	657	0	1	1,825	59
Sweden	0	0	0	0	0	0	0	1	(s)	288	(s)	(s)	290	9
Switzerland	0	0	0	0	0	0	(s)	1	0	0	(s)	(s)	1	(s)
Thailand	0	0	0	0	0	0	0	1	(s)	0	0	0	2	(s)
Trinidad and Tobago	0	(s)	0	0	0	0	(s)	0	0	0	0	(s)	(s)	(s)
Turkey	0	0	0	0	0	0	0	0	(s)	67	0	0	67	2
United Arab Emirates	0	0	0	0	0	0	0	28	0	47	0	(s)	80	3
United Kingdom	0	2	24	0	(s)	5	(s)	7	(s)	547	1	3	585	19
U.S.S.R.	0	0	0	0	0	0	0	42	0	76	0	15	133	4
Uruguay	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Venezuela	0	2	0	3	0	0	3	3	(s)	88	0	2	101	3
Virgin Islands	3,496	0	0	0	0	0	0	1	0	0	0	1	3,498	113
West Germany	0	0	1	0	0	0	(s)	5	(s)	113	(s)	10	131	4
Yugoslavia	0	0	0	0	0	0	0	0	0	55	0	0	55	2
Other	0	(s)	(s)	0	0	0	(s)	16	(s)	10	1	3	30	1
Total	4,384	1,149	853	203	2,295	8,142	327	734	65	6,508	7	661	25,328	817

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - May 1986
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	19	0	0	0	0	5	7	1	3	0	116	151	1
Australia	0	4	0	0	223	1,638	30	43	2	1,083	(s)	25	3,048	20
Bahamas	0	45	326	211	706	2,182	0	17	(s)	0	(s)	(s)	3,488	23
Bahrain	0	1	0	0	(s)	0	(s)	(s)	0	188	0	2	191	1
Belgium & Luxembourg	0	19	0	0	0	0	57	121	1	3,179	(s)	4	3,381	22
Brazil	0	50	40	0	0	0	25	31	(s)	86	0	1	234	2
Cameroon	0	0	0	0	0	0	0	(s)	0	75	0	0	75	(s)
Canada	2,050	2,539	459	1,479	1,565	1,625	68	566	50	1,902	10	805	13,119	86
Chile	0	2	0	0	0	0	7	97	1	0	(s)	4	112	1
China, Taiwan	617	7	1	0	581	4,186	1	211	5	169	(s)	37	5,814	38
Colombia	0	(s)	0	0	0	0	3	24	(s)	(s)	0	12	39	(s)
Costa Rica	0	(s)	10	0	0	0	8	35	(s)	20	(s)	10	83	1
Denmark	0	1	0	0	0	0	(s)	1	(s)	536	(s)	9	548	4
Dominican Republic	0	28	0	0	56	0	(s)	13	(s)	0	0	4	101	1
Ecuador	0	0	0	10	(s)	0	2	43	1	0	(s)	4	60	(s)
Egypt	0	0	0	0	0	0	0	0	0	135	(s)	(s)	138	1
El Salvador	0	0	8	0	0	0	2	16	0	(s)	0	1	28	(s)
Finland	0	0	0	0	0	0	0	9	0	0	0	(s)	10	(s)
France	0	3	0	0	0	107	1	15	21	953	0	415	1,514	10
French Pacific Isl	0	1	0	0	392	390	0	2	0	0	0	0	785	5
Ghana	0	0	0	0	0	0	0	1	(s)	173	0	(s)	174	1
Greece	0	6	0	0	0	0	0	3	(s)	475	0	(s)	485	3
Guatemala	0	358	321	29	683	0	6	49	(s)	(s)	(s)	3	1,448	10
Guinea	0	0	0	0	0	0	0	4	0	0	0	0	4	(s)
Honduras	0	44	0	0	70	0	4	22	1	0	0	6	147	1
Hong Kong	0	4	0	0	0	0	(s)	9	1	0	(s)	1	14	(s)
India	0	0	0	0	0	0	2	50	(s)	(s)	(s)	27	80	1
Indonesia	0	0	0	0	0	0	4	14	(s)	97	(s)	(s)	116	1
Israel	0	1	16	208	0	0	(s)	15	(s)	134	0	6	379	2
Italy	0	111	3	0	0	0	25	23	(s)	5,090	(s)	562	5,817	38
Ivory Coast	0	0	0	0	0	0	0	5	(s)	0	(s)	(s)	5	(s)
Jamaica	0	99	0	0	133	851	1	16	0	(s)	0	4	1,105	7
Japan	0	4	1,347	3,228	5,012	3,142	351	193	16	7,226	(s)	244	20,763	137
Jordan	0	1	0	0	0	0	0	5	0	0	0	0	6	(s)
Korea, Republic	0	35	2	0	1	2,230	9	220	2	492	(s)	480	3,471	23
Kuwait	0	1	0	0	0	0	(s)	3	0	0	0	0	5	(s)
Lebanon	0	(s)	0	0	0	0	0	3	0	0	0	(s)	3	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	7	2	0	(s)	5	14	(s)
Mexico	0	2,544	3	17	1	5,681	21	471	71	372	(s)	60	9,240	61
Netherlands	0	1	19	0	0	0	15	41	3	3,276	(s)	193	3,548	23
Netherlands Antilles	0	(s)	0	0	65	2,668	0	10	0	0	0	3	2,746	18
New Zealand	0	(s)	0	0	0	0	5	7	(s)	127	1	5	145	1
Nigeria	0	0	0	0	0	0	0	62	1	0	(s)	(s)	63	(s)
Norway	0	4	0	0	(s)	0	0	4	(s)	354	(s)	(s)	363	2
Pacific Trust Terr.	0	0	0	0	0	0	0	2	0	0	0	(s)	2	(s)
Panama	0	0	133	534	582	648	8	151	(s)	0	(s)	7	1,528	10
Peru	0	20	25	0	1,053	0	1	35	(s)	(s)	(s)	3	1,672	11
Philippines	0	(s)	0	0	0	0	7	36	0	0	0	6	50	(s)
Puerto Rico	2,923	53	4	0	0	85	4	189	(s)	11	(s)	49	3,325	22
Rep. of South Africa	0	1	0	0	0	0	(s)	5	(s)	182	(s)	14	202	1
Saudi Arabia	0	62	0	0	0	0	(s)	39	(s)	2	(s)	18	121	1

See footnotes at end of table.

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - May 1988 (continued)
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Singapore	0	2	0	0	0	2,855	8	24	(s)	1	(s)	125	3,015	20
Spain	0	(s)	0	0	202	1,741	(s)	21	19	3,450	0	295	5,729	38
Surinam	0	35	0	0	0	0	(s)	6	0	0	0	(s)	41	(s)
Sweden	0	0	0	0	0	0	1	6	(s)	288	(s)	1	298	2
Switzerland	0	(s)	0	0	0	0	1	3	(s)	0	(s)	1	5	(s)
Thailand	0	(s)	0	0	0	0	5	15	1	0	(s)	192	213	1
Trinidad and Tobago	0	4	0	0	0	0	(s)	1	(s)	0	0	2	8	(s)
Turkey	0	(s)	0	0	0	0	0	26	(s)	399	0	2	426	3
United Arab Emirates	0	(s)	0	0	0	5	(s)	50	0	132	(s)	7	194	1
United Kingdom	0	4	24	0	1	204	1	22	3	1,060	3	58	1,380	9
U.S.S.R.	0	0	0	0	0	25	0	250	0	216	0	50	542	4
Uruguay	0	(s)	0	0	0	0	0	3	(s)	0	0	1	4	(s)
Venezuela	0	10	0	5	(s)	0	5	18	1	530	0	16	586	4
Virgin Islands	19,941	3	0	0	0	0	0	16	0	0	0	5	19,965	131
West Germany	0	11	2	0	0	0	14	124	6	282	6	43	488	3
Yugoslavia	0	0	0	0	0	0	0	(s)	0	207	0	(s)	208	1
Other	0	153	3	13	182	633	3	74	(s)	263	1	66	1,393	9
Total	25,531	6,289	2,745	5,735	11,508	30,898	711	3,609	220	33,171	27	4,008	124,453	819

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 31, 1988
(Thousand Barrels)

Thousands Barrels																
Commodity	PAD District I			PAD District II			PAD District III					PAD		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Crude Oil (incl. lease condensate)																
Refinery	--	--	14,951	--	--	--	14,168	--	--	--	--	--	49,477	2,432	24,343	105,371
Tank Farms and Pipelines	--	--	1,333	--	--	--	64,097	--	--	--	--	--	106,802	9,723	26,734	208,689
Leases	--	--	40	--	--	--	1,458	--	--	--	--	--	16,756	1,178	1,590	21,022
Strategic Petroleum Reserve ¹	--	--	0	--	--	--	0	--	--	--	--	--	547,949	0	0	547,949
Alaskan In-Transit	--	--	0	--	--	--	0	--	--	--	--	--	0	0	22,642	22,642
Total	--	--	16,324	--	--	--	79,723	--	--	--	--	--	720,984	13,333	75,309	905,573
Total Stocks, All Oils (excl. Crude Oil)																
Refinery	40,110	3,328	43,438	39,909	9,099	16,373	65,381	10,204	78,810	48,326	5,964	1,249	144,553	12,669	67,434	333,475
Bulk Terminal	--	--	89,537	--	--	--	66,203	--	--	--	--	--	67,843	3,026	24,791	251,400
Pipeline	--	--	26,670	--	--	--	36,306	--	--	--	--	--	38,766	2,436	4,850	109,028
Natural Gas Processing Plant	111	41	152	113	50	2,124	2,287	1,214	5,544	2,203	178	163	9,302	213	106	12,060
Total	--	--	159,797	--	--	--	170,177	--	--	--	--	--	260,464	18,344	97,181	705,963
Pentanes Plus																
Refinery	17	0	17	235	16	139	390	278	308	71	1	26	684	1	20	1,112
Bulk Terminal	--	--	18	--	--	--	1,405	--	--	--	--	--	2,304	0	5	3,732
Pipeline	--	--	0	--	--	--	697	--	--	--	--	--	918	78	0	1,693
Natural Gas Processing Plant	3	8	11	22	17	389	428	372	578	543	60	45	1,598	88	22	2,147
Total	--	--	46	--	--	--	2,920	--	--	--	--	--	5,504	167	47	8,884
Liquefied Petroleum Gases																
Refinery	704	18	722	2,248	207	471	2,926	1,695	2,624	3,082	26	25	7,452	313	669	12,082
Bulk Terminal	--	--	1,292	--	--	--	14,147	--	--	--	--	--	36,811	41	1,031	53,322
Pipeline	--	--	1,508	--	--	--	6,659	--	--	--	--	--	6,104	432	0	14,703
Natural Gas Processing Plant	108	33	141	91	33	1,734	1,858	824	4,960	1,659	116	118	7,677	125	84	9,885
Total	--	--	3,663	--	--	--	25,590	--	--	--	--	--	58,044	911	1,784	89,992
Ethane																
Refinery	15	0	15	1	0	0	1	46	308	0	0	0	354	0	0	370
Bulk Terminal	--	--	2	--	--	--	1,932	--	--	--	--	--	10,259	0	0	12,193
Pipeline	--	--	0	--	--	--	1,267	--	--	--	--	--	2,216	126	0	3,609
Natural Gas Processing Plant	0	0	0	17	0	235	252	65	1,674	140	7	17	1,903	3	0	2,158
Total	--	--	17	--	--	--	3,452	--	--	--	--	--	14,732	129	0	18,330

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 31, 1988 (continued)

Thousand Barrels																
Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast
Propane																
Refinery	372	4	376	1,338	31	138	1,507	876	1,435	1,415	5	5	3,736	94	98	5,811
Bulk Terminal	--	--	1,012	--	--	--	8,562	--	--	--	--	--	17,370	41	261	27,246
Pipeline	--	--	1,417	--	--	--	3,831	--	--	--	--	--	2,876	173	0	8,097
Natural Gas Processing Plant	66	27	93	44	23	1,013	1,080	482	1,711	133	49	71	2,446	80	67	3,766
Total	--	--	2,898	--	--	--	14,980	--	--	--	--	--	26,228	388	426	44,920
Normal Butane																
Refinery	258	14	272	674	108	232	1,014	571	414	1,132	4	15	2,136	162	483	4,067
Bulk Terminal	--	--	276	--	--	--	2,562	--	--	--	--	--	5,493	0	695	9,026
Pipeline	--	--	91	--	--	--	1,058	--	--	--	--	--	723	86	0	1,958
Natural Gas Processing Plant	40	3	43	14	10	362	386	224	886	463	40	23	1,636	34	11	2,110
Total	--	--	682	--	--	--	5,020	--	--	--	--	--	9,988	282	1,189	17,161
Isobutane																
Refinery	59	0	59	235	68	101	404	202	467	535	17	5	1,226	57	88	1,834
Bulk Terminal	--	--	2	--	--	--	1,091	--	--	--	--	--	3,689	0	75	4,857
Pipeline	--	--	0	--	--	--	503	--	--	--	--	--	489	47	0	1,039
Natural Gas Processing Plant	2	3	5	16	0	124	140	53	689	923	20	7	1,692	8	6	1,851
Total	--	--	66	--	--	--	2,138	--	--	--	--	--	7,096	112	169	9,581
Other Hydrocarbons and Alcohol																
Refinery	66	0	66	152	2	18	172	0	133	75	0	2	210	9	20	477
Total	--	--	66	--	--	--	172	--	--	--	--	--	210	9	20	477
Unfinished Oils																
Refinery	3,360	275	3,635	3,030	137	1,425	4,592	826	8,738	5,324	143	79	15,110	637	4,907	28,881
Naphthas and Lighter	2,219	184	2,403	1,416	107	242	1,765	716	5,416	2,460	147	3	8,742	363	4,230	17,503
Kerosene and Light Gas Oils	4,855	218	5,073	3,370	343	1,925	5,638	690	9,510	8,040	437	183	18,860	852	13,249	43,672
Heavy Gas Oils	1,028	133	1,161	2,635	3	1,069	3,707	348	6,750	4,022	105	0	11,225	533	5,387	22,013
Residuum	11,462	810	12,272	10,451	590	4,661	15,702	2,580	30,414	19,846	832	265	53,937	2,385	27,773	112,069
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 31, 1988 (continued)

(Thousands Barrels)																
Commodity	PAD District I			PAD District II				PAD District III					PAD District IV		United States	
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.		Dist. V West Coast
Motor Gasoline Blending Components																
Refinery	4,355	72	4,427	4,830	649	1,701	7,180	1,242	7,475	5,356	203	220	14,496	1,990	7,767	35,860
Bulk Terminal	--	--	155	--	--	--	390	--	--	--	--	--	747	5	22	1,319
Pipeline	--	--	0	--	--	--	8	--	--	--	--	--	0	0	0	8
Total	--	--	4,582	--	--	--	7,578	--	--	--	--	--	15,243	1,995	7,789	37,187
Aviation Gasoline Blending Components																
Refinery	0	0	0	61	0	13	74	0	0	52	0	0	52	0	41	167
Total	--	--	0	--	--	--	74	--	--	--	--	--	52	0	41	167
Total Finished Motor Gasoline																
Refinery	8,264	351	8,615	6,311	1,560	3,255	11,126	1,505	11,633	4,651	998	172	18,959	1,881	7,711	48,292
Bulk Terminal	--	--	35,522	--	--	--	26,942	--	--	--	--	--	10,310	1,742	12,288	86,804
Pipeline	--	--	14,429	--	--	--	17,659	--	--	--	--	--	18,026	1,179	2,068	53,361
Total	--	--	58,566	--	--	--	55,727	--	--	--	--	--	47,295	4,802	22,067	188,457
Finished Leaded Motor Gasoline																
Refinery	997	95	1,092	1,383	299	1,161	2,843	434	2,137	1,144	117	60	3,892	819	2,597	11,243
Bulk Terminal	--	--	7,217	--	--	--	7,465	--	--	--	--	--	2,835	711	3,882	22,110
Pipeline	--	--	2,264	--	--	--	4,400	--	--	--	--	--	4,156	620	335	11,775
Total	--	--	10,573	--	--	--	14,708	--	--	--	--	--	10,883	2,150	6,814	45,128
Finished Unleaded Motor Gasoline																
Refinery	7,267	256	7,523	4,928	1,261	2,094	8,283	1,071	9,496	3,507	881	112	15,067	1,062	5,114	37,049
Bulk Terminal	--	--	28,305	--	--	--	19,477	--	--	--	--	--	7,475	1,031	8,406	64,694
Pipeline	--	--	12,165	--	--	--	13,259	--	--	--	--	--	13,870	559	1,733	41,586
Total	--	--	47,993	--	--	--	41,019	--	--	--	--	--	36,412	2,652	15,253	143,329
Finished Aviation Gasoline																
Refinery	47	0	47	100	23	13	136	82	252	133	0	0	467	43	195	888
Bulk Terminal	--	--	270	--	--	--	333	--	--	--	--	--	53	14	270	940
Pipeline	--	--	20	--	--	--	93	--	--	--	--	--	23	0	0	136
Total	--	--	337	--	--	--	562	--	--	--	--	--	543	57	465	1,964

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 31, 1988 (continued)

(Thousand Barrels)																				
Commodity	PAD District I				PAD District II				PAD District III				PAD District IV			United States				
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.	PAD Dist. V West Coast					
Naphtha-Type Jet Fuel																				
Refinery	414	0	414	390	27	201	618	296	612	414	152	76	1,550	236	872	3,690				
Bulk Terminal	--	--	911	--	--	--	616	--	--	--	--	--	416	23	595	2,561				
Pipeline	--	--	109	--	--	--	154	--	--	--	--	--	404	107	372	1,146				
Total	--	--	1,434	--	--	--	1,388	--	--	--	--	--	2,370	366	1,839	7,397				
Kerosene-Type Jet Fuel																				
Refinery	1,671	23	1,694	1,406	304	448	2,158	432	3,117	2,347	35	40	5,971	335	4,158	14,316				
Bulk Terminal	--	--	4,424	--	--	--	2,863	--	--	--	--	--	2,254	246	2,389	12,176				
Pipeline	--	--	3,811	--	--	--	2,989	--	--	--	--	--	5,073	176	851	12,900				
Total	--	--	9,929	--	--	--	8,010	--	--	--	--	--	13,298	757	7,398	39,392				
Kerosene																				
Refinery	180	84	264	468	54	273	795	61	781	420	18	0	1,280	47	151	2,537				
Bulk Terminal	--	--	1,647	--	--	--	675	--	--	--	--	--	208	29	43	2,602				
Pipeline	--	--	63	--	--	--	190	--	--	--	--	--	198	0	7	458				
Total	--	--	1,974	--	--	--	1,660	--	--	--	--	--	1,686	76	201	5,597				
Distillate Fuel Oils																				
Refinery	5,737	491	6,228	4,549	1,026	2,916	8,491	830	7,291	3,393	1,199	101	12,814	1,593	5,466	34,592				
Bulk Terminal	--	--	22,280	--	--	--	12,525	--	--	--	--	--	4,754	861	5,361	45,781				
Pipeline	--	--	6,730	--	--	--	7,797	--	--	--	--	--	7,750	464	1,332	24,073				
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	6				
Total	--	--	35,238	--	--	--	28,813	--	--	--	--	--	25,324	2,918	12,159	104,452				
Residual Fuel Oils																				
Refinery	2,668	81	2,749	1,821	320	148	2,289	253	4,083	3,399	182	10	7,927	488	6,451	19,904				
Bulk Terminal	--	--	15,367	--	--	--	892	--	--	--	--	--	7,598	0	1,865	25,722				
Pipeline	--	--	0	--	--	--	0	--	--	--	--	--	0	0	120	120				
Total	--	--	18,116	--	--	--	3,181	--	--	--	--	--	15,525	488	8,436	45,746				
Naphtha < 400 Deg. Petro. Feed. Use																				
Refinery	502	0	502	375	0	92	467	48	802	259	9	9	1,127	25	90	2,211				
Total	502	0	502	375	0	92	467	48	802	259	9	9	1,127	25	90	2,211				
Other Oils > 400 Deg. Petro. Feed. Use																				
Refinery	5	0	5	8	0	0	8	104	1,781	291	0	0	2,176	1	158	2,348				
Total	5	0	5	8	0	0	8	104	1,781	291	0	0	2,176	1	158	2,348				

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, May 31, 1988 (continued)

(Thousands Barrels)																	
Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States				
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Dist. IV Rocky Mt.	PAD Dist. V West Coast	
Special Naphthas																	
Refinery	512	40	552	218	0	103	321	93	1,237	56	196	0	1,582	7	145	2,607	
Bulk Terminal	--	--	517	--	--	--	268	--	--	--	--	--	191	0	38	1,014	
Total	--	--	1,069	--	--	--	589	--	--	--	--	--	1,773	7	183	3,621	
Lubricants																	
Refinery	266	867	1,133	1,021	0	186	1,207	13	4,264	1,533	414	0	6,224	92	1,164	9,820	
Bulk Terminal	--	--	2,026	--	--	--	997	--	--	--	--	--	483	2	519	4,027	
Total	--	--	3,159	--	--	--	2,204	--	--	--	--	--	6,707	94	1,683	13,847	
Waxes																	
Refinery	0	77	77	69	0	27	96	45	260	113	19	0	437	87	106	803	
Total	--	--	77	--	--	--	96	--	--	--	--	--	437	87	106	803	
Petroleum Coke																	
Refinery	496	0	496	343	2,006	196	2,545	12	305	1,981	216	0	2,514	17	1,913	7,485	
Total	496	0	496	343	2,006	196	2,545	12	305	1,981	216	0	2,514	17	1,913	7,485	
Asphalt and Road Oil																	
Refinery	2,375	379	2,754	4,640	2,304	1,502	8,446	593	1,066	671	1,464	303	4,097	3,077	2,329	20,703	
Bulk Terminal	--	--	4,188	--	--	--	4,034	--	--	--	--	--	743	63	329	9,357	
Total	--	--	6,942	--	--	--	12,480	--	--	--	--	--	4,840	3,140	2,658	30,060	
Miscellaneous Products																	
Refinery	369	35	404	213	11	10	234	42	372	183	0	0	597	42	235	1,512	
Bulk Terminal	--	--	920	--	--	--	116	--	--	--	--	--	971	0	36	2,043	
Pipeline	--	--	0	--	--	--	60	--	--	--	--	--	270	0	100	430	
Natural Gas Processing Plant	0	0	0	0	0	1	1	18	0	1	2	0	21	0	0	22	
Total	--	--	1,324	--	--	--	411	--	--	--	--	--	1,859	42	371	4,007	
Total Stocks, All Oils	--	--	176,121	--	--	--	249,900	--	--	--	--	--	981,448	31,677	172,490	1,611,636	

¹ Includes 38,395 thousand barrels of domestic crude oil.

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, May 31, 1988
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	8,309	35,828	1,911	28,508	18,116
Connecticut	292	1,061	28	1,514	537
Delaware, D.C., Maryland	294	1,421	174	1,732	1,360
Florida	1,307	5,905	188	2,510	1,507
Georgia	872	2,107	72	1,055	186
Maine, New Hampshire, Vermont	166	791	99	1,360	541
Massachusetts	219	1,425	113	1,379	887
New Jersey	886	8,508	110	5,742	6,819
New York	680	3,557	144	3,571	2,727
North Carolina	840	1,870	313	1,555	420
Pennsylvania	1,244	4,723	348	4,349	1,514
Rhode Island	200	463	w	343	w
South Carolina	544	1,346	140	880	w
Virginia	619	2,482	163	2,402	1,026
West Virginia	146	169	w	116	w
PAD District II Total	10,308	27,760	1,470	21,016	3,181
Illinois	2,060	5,393	242	3,972	1,318
Indiana	1,103	4,141	158	2,235	545
Iowa	516	1,051	w	1,141	w
Kansas, Nebraska	1,230	1,950	32	2,249	64
Kentucky	714	1,220	59	851	w
Michigan	919	2,840	94	1,598	132
Minnesota	540	1,514	w	1,721	166
Missouri	368	922	w	684	w
North Dakota, South Dakota	195	558	w	745	w
Ohio	731	3,331	469	2,108	255
Oklahoma	825	1,645	w	1,741	184
Tennessee	524	1,567	85	838	170
Wisconsin	583	1,628	w	1,133	133
PAD District III Total	6,727	22,542	1,488	17,568	15,525
Alabama	452	1,175	42	837	1,218
Arkansas	207	362	w	233	w
Louisiana	1,140	4,111	435	3,491	5,754
Mississippi	612	1,665	12	1,719	w
New Mexico	189	325	w	280	10
Texas	4,127	14,904	995	11,008	8,312
PAD District IV Total	1,530	2,093	76	2,454	488
Colorado	357	657	w	593	w
Idaho	127	191	w	198	w
Montana	508	491	w	643	75
Utah	162	291	w	398	147
Wyoming	376	463	w	622	w
PAD District V Total	6,479	13,520	194	10,827	8,316
Alaska	222	296	w	1,139	w
Arizona	311	468	w	292	w
California	3,732	9,181	128	5,705	4,974
Hawaii	102	601	w	556	w
Nevada	100	209	w	87	w
Oregon	587	779	w	1,117	230
Washington	1,425	1,986	w	1,931	1,320
U.S. Total	33,353	101,743	5,139	80,373	45,626

w = Withheld to avoid disclosure of individual company data.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, May 1988
(Thousand Barrels)

(Thousand Barrels)																									
Commodity	From I to				From II to				From III to				From IV to				From V to								
	II	III	V	I	III	IV	V	I	II	IV	V	I	II	III	V	I	II	III	IV						
Crude Oil	0	0	0	0	171	2,350	820	0	487	48,688	0	0	5,201	2,911	0	0	0	21,647	0						
Petroleum Products	7,340	225	0	3,969	7,467	1,748	0	77,315	26,853	0	2,327	1,458	1,427	1,551	0	0	40	0	0						
Pentanes Plus	0	0	0	0	243	0	0	0	602	0	0	0	56	129	0	0	0	0	0						
Liquefied Petroleum Gases	9	0	0	682	4,258	40	0	844	3,919	0	0	557	1,298	0	0	0	0	0	0						
Unfinished Oils	0	0	0	0	0	0	0	162	0	0	150	0	0	0	0	0	0	0	0						
Blending Components																									
Motor Gasoline	10	49	0	132	53	0	0	163	9	0	60	0	0	0	0	0	0	0	0						
Aviation Gasoline	4,928	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Finished Motor Gasoline	1,069	0	0	2,085	1,579	931	0	46,041	14,177	0	1,344	459	0	1,042	0	0	0	0	0						
Finished Leaded Motor Gasoline	3,859	0	0	347	430	189	0	7,136	3,059	0	459	173	0	418	0	0	0	0	0						
Finished Unleaded Motor Gasoline	0	0	0	1,738	1,149	742	0	38,905	11,118	0	885	286	0	624	0	0	0	0	0						
Finished Aviation Gasoline	0	0	0	0	0	18	0	205	132	0	0	0	0	0	0	0	0	0	0						
Naphtha-Type Jet Fuel	0	0	0	0	84	0	0	515	0	0	276	109	0	90	0	0	0	0	0						
Kerosene-Type Jet Fuel	195	0	0	212	132	542	0	9,425	2,334	0	129	5	0	53	0	0	0	0	0						
Kerosene	7	0	0	4	230	0	0	103	0	0	0	0	0	0	0	0	0	0	0						
Distillate Fuel Oil	2,091	0	0	603	544	217	0	16,461	4,829	0	368	272	0	366	0	0	0	0	0						
Residual Fuel Oil	0	0	0	0	1	289	0	825	0	0	0	0	0	0	0	0	0	0	0						
Petrochemical Feedstocks ¹	81	50	0	60	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0						
Special Naphthas	0	3	0	0	0	0	0	283	147	0	0	0	0	0	0	0	0	0	0						
Lubricants	9	101	0	84	55	0	0	1,688	457	0	0	0	0	0	0	0	0	40	0						
Waxes	0	0	0	0	0	0	0	12	10	0	0	0	0	0	0	0	0	0	0						
Asphalt and Road Oil	0	0	0	106	0	0	0	515	212	0	0	0	0	0	0	0	0	0	0						
Miscellaneous Products	10	22	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	0						
Total	7,340	225	0	4,140	9,817	2,568	0	77,802	25,541	0	2,327	6,659	4,338	1,551	0	0	21,687	0	0						

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, May 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	V	I	III	IV	I	II	IV	V	II	III	I	II	III
Crude Oil	0	0	0	0	2,350	820	0	48,688	0	0	5,201	2,911	0	4,947	0
Petroleum Products	7,203	0	0	2,490	6,940	1,748	59,345	22,684	0	1,853	1,458	1,427	1,551	0	0
Pentanes Plus	0	0	0	0	243	0	0	602	0	0	56	129	0	0	0
Liquefied Petroleum Gases	0	0	0	682	4,258	40	727	3,919	0	0	557	1,298	0	0	0
Blending Components	0	0	0	132	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,928	0	0	1,317	1,579	931	37,380	12,230	0	1,080	459	0	1,042	0	0
Finished Leaded Motor Gasoline	1,069	0	0	157	430	189	5,949	2,491	0	326	173	0	418	0	0
Finished Unleaded Motor Gasoline	3,859	0	0	1,160	1,149	742	31,431	9,739	0	754	286	0	624	0	0
Finished Aviation Gasoline	0	0	0	0	0	18	27	98	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	84	0	0	306	0	0	276	109	0	90	0	0
Kerosene-Type Jet Fuel	195	0	0	136	132	542	8,013	2,043	0	129	5	0	53	0	0
Kerosene	7	0	0	0	100	0	103	0	0	0	0	0	0	0	0
Distillate Fuel Oil	2,073	0	0	223	544	217	12,789	3,792	0	368	272	0	366	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7,203	0	0	2,490	9,290	2,568	59,345	71,372	0	1,853	6,659	4,338	1,551	4,947	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, May 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to				From V to		
	II	III	V	I	III	V	I	New England	Central Atlantic	Lower Atlantic	V	I	II
Crude Oil	0	0	0	0	171	0	487	0	487	0	0	0	16,700
Petroleum Products	137	225	0	1,479	527	0	17,970	462	2,852	14,656	474	0	40
Liquefied Petroleum Gases	9	0	0	0	0	0	117	0	0	117	0	0	0
Unfinished Oils	10	49	0	0	53	0	162	0	54	108	150	0	0
Motor Gasoline Blending Components	0	0	0	768	0	0	163	0	163	0	60	0	0
Finished Motor Gasoline	0	0	0	190	0	0	8,661	0	53	8,608	264	0	0
Finished Leaded Motor Gasoline	0	0	0	578	0	0	1,187	0	53	1,187	133	0	0
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	7,474	0	94	7,421	131	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	178	0	0	84	0	0	0
Naphtha-Type Jet Fuel	0	0	0	76	0	0	209	0	174	1,238	0	0	0
Kerosene-Type Jet Fuel	0	0	0	4	130	0	1,412	0	0	0	0	0	0
Kerosene	18	0	0	380	0	0	3,672	462	1,032	2,178	0	0	0
Distillate Fuel Oil	81	50	0	1	289	0	825	0	611	214	0	0	0
Residual Fuel Oil	0	0	0	60	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks ¹	0	3	0	0	0	0	283	0	120	163	147	0	0
Special Naphthas	9	101	0	84	55	0	1,688	0	507	1,181	457	0	40
Lubricants	0	0	0	0	0	0	12	0	0	12	10	0	0
Waxes	0	0	0	106	0	0	515	0	7	508	212	0	0
Asphalt and Road Oil	10	22	0	0	0	0	73	0	37	36	0	0	0
Miscellaneous Products	137	225	0	1,650	527	0	18,457	462	3,339	14,656	474	0	16,740

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, May 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	658	0	658	53,889	3,341	50,548	26,908	49,175	-22,267	820	8,112	-7,292	0	21,647	-21,647
Petroleum Products	81,284	7,565	73,719	35,651	13,184	22,467	9,159	106,495	-97,336	1,748	4,436	-2,688	3,878	40	3,838
Pentanes Plus	0	0	0	658	243	415	372	602	-230	0	185	-185	0	0	0
Liquefied Petroleum Gases	1,526	9	1,517	4,485	4,980	-495	5,556	4,763	793	40	1,855	-1,815	0	0	0
Unfinished Oils	162	9	162	0	0	0	0	312	-312	0	0	0	150	0	150
Blending Components															
Motor Gasoline	295	59	236	19	185	-166	102	232	-130	0	0	0	60	0	60
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	48,126	4,928	43,198	19,564	4,595	14,969	1,579	61,562	-59,983	931	1,501	-570	2,386	0	2,386
Finished Leaded Motor Gasoline	7,483	1,069	6,414	4,301	966	3,335	430	10,654	-10,224	189	591	-402	877	0	877
Finished Unleaded Motor Gasoline	40,643	3,859	36,784	15,263	3,629	11,634	1,149	50,908	-49,759	742	910	-168	1,509	0	1,509
Finished Aviation Gasoline	205	0	205	132	18	114	0	337	-337	18	0	18	0	0	0
Naphtha-Type Jet Fuel	515	0	515	109	84	25	84	791	-707	0	199	-199	366	0	366
Kerosene-Type Jet Fuel	9,637	195	9,442	2,534	886	1,648	132	11,888	-11,756	542	58	484	182	0	182
Kerosene	107	7	100	7	234	-227	230	103	127	0	0	0	0	0	0
Distillate Fuel Oil	17,064	2,091	14,973	7,192	1,364	5,828	544	21,658	-21,114	217	638	-421	734	0	734
Residual Fuel Oil	826	0	826	0	290	-290	289	825	-536	0	0	0	0	0	0
Petrochemical Feedstocks ¹	60	131	-71	106	60	46	50	25	25	0	0	0	0	0	0
Special Naphthas	283	3	280	147	0	147	3	430	-427	0	0	0	0	0	0
Lubricants	1,772	110	1,662	466	139	327	196	2,145	-1,949	0	0	0	0	40	-40
Waxes	12	0	12	10	0	10	0	22	-22	0	0	0	0	0	0
Asphalt and Road Oil	621	0	621	212	106	106	0	727	-727	0	0	0	0	0	0
Miscellaneous Products	73	32	41	10	0	10	22	73	-51	0	0	0	0	0	0
Total	81,942	7,565	74,377	89,540	16,525	73,015	36,067	155,670	-119,603	2,568	12,548	-9,980	3,878	21,687	-17,809

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 30. Production of Residual Fuel Oil by Sulfur Content by PAD District, May, 1988

Commodity	PAD District I			PAD District II				PAD District III					PAD District IV			United States
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	PAD Rocky Mts.	PAD Dist. V West Coast	
Residual Fuel Oil	3,875	69	3,944	1,545	287	140	1,972	466	5,566	3,547	276	13	9,868	417	10,637	26,838
0.00 to 0.30% Sulfur	905	20	925	44	0	0	44	59	0	671	80	4	824	123	968	2,884
0.31 to 1.00% Sulfur	2,568	0	2,568	378	22	83	483	288	867	595	150	9	1,909	30	1,262	6,252
Greater Than 1.00% Sulfur	402	49	451	1,123	265	57	1,445	109	4,699	2,281	46	0	7,135	264	8,407	17,702

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District, May 31, 1988

Commodity	PAD District I			PAD District II				PAD District III					PAD District IV			United States
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	PAD Rocky Mts.	PAD Dist. V West Coast	
Residual Fuel Oil - 0.00 to 0.30% Sulfur	599	60	659	78	0	0	78	51	0	1,151	5	4	1,211	105	649	2,702
Refinery	--	--	2,987	--	--	--	189	--	--	--	--	--	369	0	0	3,545
Bulk Terminal	--	--	3,646	--	--	--	267	--	--	--	--	--	1,580	105	649	6,247
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Residual Fuel Oil - 0.31 to 1.00% Sulfur	1,074	0	1,074	327	112	52	491	66	720	139	140	6	1,071	84	971	3,691
Refinery	--	--	6,071	--	--	--	288	--	--	--	--	--	3,949	0	542	10,850
Bulk Terminal	--	--	7,145	--	--	--	779	--	--	--	--	--	5,020	84	1,513	14,541
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Residual Fuel Oil - Greater than 1.00% Sulfur	995	21	1,016	1,416	208	96	1,720	136	3,363	2,109	37	0	5,645	299	4,831	13,511
Refinery	--	--	6,309	--	--	--	415	--	--	--	--	--	3,280	0	1,323	11,327
Bulk Terminal	--	--	7,325	--	--	--	2,135	--	--	--	--	--	8,925	299	6,154	24,838
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content, May 1988

Commodity	From I to			From II to				From III to				From V to		
	II	III	V	I	III	V	I	New England	Central Atlantic	Lower Atlantic	II	I	II	III
Residual Fuel Oil	0	0	0	1	289	0	825	0	611	214	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	80	0	80	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	1	289	0	745	0	531	214	0	0	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, May 1988
(Thousand Barrels)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Arab OPEC				
Algeria	1,207	0	396	1,603
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Neutral Zone	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	1,207	0	396	1,603
Other OPEC				
Ecuador	0	0	360	360
Gabon	0	0	0	0
Indonesia	0	0	0	0
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	0	0	1,089	1,089
Subtotal Other OPEC	0	0	1,449	1,449
Other				
Angola	353	0	0	353
Australia	0	243	0	243
Bahamas	0	299	213	512
Bolivia	0	0	0	0
Brazil	397	100	0	497
Brunel	0	0	0	0
Canada	350	540	674	1,564
China, People's Republic	0	0	0	0
Congo	0	0	0	0
Egypt	0	0	0	0
France	0	0	276	276
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	0	0	0
Netherlands	0	350	75	425
Netherlands Antilles	0	354	598	952
Norway	0	0	0	0
Oman	0	0	0	0
Peru	0	345	626	971
Puerto Rico	0	0	0	0
Romania	0	0	297	297
Spain	0	0	0	0
Syria	0	0	0	0
Trinidad	0	0	1,045	1,045
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	0	407	1,496	1,903
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	0	51	426	477

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, May 1988 (continued)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Other Eastern Hemisphere	384	147	0	531
Subtotal Other	1,484	2,836	5,726	10,046
Total Imports	2,691	2,836	7,571	13,098

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, May 1988

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	2,157	2,593	7,532	12,282
Connecticut	0	299	0	299
Florida	0	78	820	898
Maine	0	0	295	295
Maryland	0	0	445	445
Massachusetts	0	623	1,606	2,229
New Jersey	1,449	540	970	2,959
New York	708	718	1,548	2,974
North Carolina	0	0	518	518
Pennsylvania	0	0	180	180
Rhode Island	0	335	34	369
South Carolina	0	0	332	332
Vermont	0	0	3	3
Virginia	0	0	781	781
PAD District II	0	0	39	39
Michigan	0	0	8	8
North Dakota	0	0	31	31
PAD District III	350	0	0	350
Texas	350	0	0	350
PAD District V	184	243	0	427
California	0	243	0	243
Hawaii	184	0	0	184
All PAD Districts	2,691	2,836	7,571	13,098

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Appendix A

District Descriptions and Maps



1847-1848. 1849-1850. 1851-1852. 1853-1854. 1855-1856. 1857-1858. 1859-1860. 1861-1862. 1863-1864. 1865-1866. 1867-1868. 1869-1870. 1871-1872. 1873-1874. 1875-1876. 1877-1878. 1879-1880. 1881-1882. 1883-1884. 1885-1886. 1887-1888. 1889-1890. 1891-1892. 1893-1894. 1895-1896. 1897-1898. 1899-1900. 1901-1902. 1903-1904. 1905-1906. 1907-1908. 1909-1910. 1911-1912. 1913-1914. 1915-1916. 1917-1918. 1919-1920. 1921-1922. 1923-1924. 1925-1926. 1927-1928. 1929-1930. 1931-1932. 1933-1934. 1935-1936. 1937-1938. 1939-1940. 1941-1942. 1943-1944. 1945-1946. 1947-1948. 1949-1950. 1951-1952. 1953-1954. 1955-1956. 1957-1958. 1959-1960. 1961-1962. 1963-1964. 1965-1966. 1967-1968. 1969-1970. 1971-1972. 1973-1974. 1975-1976. 1977-1978. 1979-1980. 1981-1982. 1983-1984. 1985-1986. 1987-1988. 1989-1990. 1991-1992. 1993-1994. 1995-1996. 1997-1998. 1999-2000. 2001-2002. 2003-2004. 2005-2006. 2007-2008. 2009-2010. 2011-2012. 2013-2014. 2015-2016. 2017-2018. 2019-2020. 2021-2022. 2023-2024. 2025-2026. 2027-2028. 2029-2030. 2031-2032. 2033-2034. 2035-2036. 2037-2038. 2039-2040. 2041-2042. 2043-2044. 2045-2046. 2047-2048. 2049-2050. 2051-2052. 2053-2054. 2055-2056. 2057-2058. 2059-2060. 2061-2062. 2063-2064. 2065-2066. 2067-2068. 2069-2070. 2071-2072. 2073-2074. 2075-2076. 2077-2078. 2079-2080. 2081-2082. 2083-2084. 2085-2086. 2087-2088. 2089-2090. 2091-2092. 2093-2094. 2095-2096. 2097-2098. 2099-2100. 2101-2102. 2103-2104. 2105-2106. 2107-2108. 2109-2110. 2111-2112. 2113-2114. 2115-2116. 2117-2118. 2119-2120. 2121-2122. 2123-2124. 2125-2126. 2127-2128. 2129-2130. 2131-2132. 2133-2134. 2135-2136. 2137-2138. 2139-2140. 2141-2142. 2143-2144. 2145-2146. 2147-2148. 2149-2150. 2151-2152. 2153-2154. 2155-2156. 2157-2158. 2159-2160. 2161-2162. 2163-2164. 2165-2166. 2167-2168. 2169-2170. 2171-2172. 2173-2174. 2175-2176. 2177-2178. 2179-2180. 2181-2182. 2183-2184. 2185-2186. 2187-2188. 2189-2190. 2191-2192. 2193-2194. 2195-2196. 2197-2198. 2199-2200. 2201-2202. 2203-2204. 2205-2206. 2207-2208. 2209-2210. 2211-2212. 2213-2214. 2215-2216. 2217-2218. 2219-2220. 2221-2222. 2223-2224. 2225-2226. 2227-2228. 2229-2230. 2231-2232. 2233-2234. 2235-2236. 2237-2238. 2239-2240. 2241-2242. 2243-2244. 2245-2246. 2247-2248. 2249-2250. 2251-2252. 2253-2254. 2255-2256. 2257-2258. 2259-2260. 2261-2262. 2263-2264. 2265-2266. 2267-2268. 2269-2270. 2271-2272. 2273-2274. 2275-2276. 2277-2278. 2279-2280. 2281-2282. 2283-2284. 2285-2286. 2287-2288. 2289-2290. 2291-2292. 2293-2294. 2295-2296. 2297-2298. 2299-2300. 2301-2302. 2303-2304. 2305-2306. 2307-2308. 2309-2310. 2311-2312. 2313-2314. 2315-2316. 2317-2318. 2319-2320. 2321-2322. 2323-2324. 2325-2326. 2327-2328. 2329-2330. 2331-2332. 2333-2334. 2335-2336. 2337-2338. 2339-2340. 2341-2342. 2343-2344. 2345-2346. 2347-2348. 2349-2350. 2351-2352. 2353-2354. 2355-2356. 2357-2358. 2359-2360. 2361-2362. 2363-2364. 2365-2366. 2367-2368. 2369-2370. 2371-2372. 2373-2374. 2375-2376. 2377-2378. 2379-2380. 2381-2382. 2383-2384. 2385-2386. 2387-2388. 2389-2390. 2391-2392. 2393-2394. 2395-2396. 2397-2398. 2399-2400. 2401-2402. 2403-2404. 2405-2406. 2407-2408. 2409-2410. 2411-2412. 2413-2414. 2415-2416. 2417-2418. 2419-2420. 2421-2422. 2423-2424. 2425-2426. 2427-2428. 2429-2430. 2431-2432. 2433-2434. 2435-2436. 2437-2438. 2439-2440. 2441-2442. 2443-2444. 2445-2446. 2447-2448. 2449-2450. 2451-2452. 2453-2454. 2455-2456. 2457-2458. 2459-2460. 2461-2462. 2463-2464. 2465-2466. 2467-2468. 2469-2470. 2471-2472. 2473-2474. 2475-2476. 2477-2478. 2479-2480. 2481-2482. 2483-2484. 2485-2486. 2487-2488. 2489-2490. 2491-2492. 2493-2494. 2495-2496. 2497-2498. 2499-2500. 2501-2502. 2503-2504. 2505-2506. 2507-2508. 2509-2510. 2511-2512. 2513-2514. 2515-2516. 2517-2518. 2519-2520. 2521-2522. 2523-2524. 2525-2526. 2527-2528. 2529-2530. 2531-2532. 2533-2534. 2535-2536. 2537-2538. 2539-2540. 2541-2542. 2543-2544. 2545-2546. 2547-2548. 2549-2550. 2551-2552. 2553-2554. 2555-2556. 2557-2558. 2559-2560. 2561-2562. 2563-2564. 2565-2566. 2567-2568. 2569-2570. 2571-2572. 2573-2574. 2575-2576. 2577-2578. 2579-2580. 2581-2582. 2583-2584. 2585-2586. 2587-2588. 2589-2590. 2591-2592. 2593-2594. 2595-2596. 2597-2598. 2599-2600. 2601-2602. 2603-2604. 2605-2606. 2607-2608. 2609-2610. 2611-2612. 2613-2614. 2615-2616. 2617-2618. 2619-2620. 2621-2622. 2623-2624. 2625-2626. 2627-2628. 2629-2630. 2631-2632. 2633-2634. 2635-2636. 2637-2638. 2639-2640. 2641-2642. 2643-2644. 2645-2646. 2647-2648. 2649-2650. 2651-2652. 2653-2654. 2655-2656. 2657-2658. 2659-2660. 2661-2662. 2663-2664. 2665-2666. 2667-2668. 2669-2670. 2671-2672. 2673-2674. 2675-2676. 2677-2678. 2679-2680. 2681-2682. 2683-2684. 2685-2686. 2687-2688. 2689-2690. 2691-2692. 2693-2694. 2695-2696. 2697-2698. 2699-2700. 2701-2702. 2703-2704. 2705-2706. 2707-2708. 2709-2710. 2711-2712. 2713-2714. 2715-2716. 2717-2718. 2719-2720. 2721-2722. 2723-2724. 2725-2726. 2727-2728. 2729-2730. 2731-2732. 2733-2734. 2735-2736. 2737-2738. 2739-2740. 2741-2742. 2743-2744. 2745-2746. 2747-2748. 2749-2750. 2751-2752. 2753-2754. 2755-2756. 2757-2758. 2759-2760. 2761-2762. 2763-2764. 2765-2766. 2767-2768. 2769-2770. 2771-2772. 2773-2774. 2775-2776. 2777-2778. 2779-2780. 2781-2782. 2783-2784. 2785-2786. 2787-2788. 2789-2790. 2791-2792. 2793-2794. 2795-2796. 2797-2798. 2799-2800. 2801-2802. 2803-2804. 2805-2806. 2807-2808. 2809-2810. 2811-2812. 2813-2814. 2815-2816. 2817-2818. 2819-2820. 2821-2822. 2823-2824. 2825-2826. 2827-2828. 2829-2830. 2831-2832. 2833-2834. 2835-2836. 2837-2838. 2839-2840. 2841-2842. 2843-2844. 2845-2846. 2847-2848. 2849-2850. 2851-2852. 2853-2854. 2855-2856. 2857-2858. 2859-2860. 2861-2862. 2863-2864. 2865-2866. 2867-2868. 2869-2870. 2871-2872. 2873-2874. 2875-2876. 2877-2878. 2879-2880. 2881-2882. 2883-2884. 2885-2886. 2887-2888. 2889-2890. 2891-2892. 2893-2894. 2895-2896. 2897-2898. 2899-2900. 2901-2902. 2903-2904. 2905-2906. 2907-2908. 2909-2910. 2911-2912. 2913-2914. 2915-2916. 2917-2918. 2919-2920. 2921-2922. 2923-2924. 2925-2926. 2927-2928. 2929-2930. 2931-2932. 2933-2934. 2935-2936. 2937-2938. 2939-2940. 2941-2942. 2943-2944. 2945-2946. 2947-2948. 2949-2950. 2951-2952. 2953-2954. 2955-2956. 2957-2958. 2959-2960. 2961-2962. 2963-2964. 2965-2966. 2967-2968. 2969-2970. 2971-2972. 2973-2974. 2975-2976. 2977-2978. 2979-2980. 2981-2982. 2983-2984. 2985-2986. 2987-2988. 2989-2990. 2991-2992. 2993-2994. 2995-2996. 2997-2998. 2999-3000. 3001-3002. 3003-3004. 3005-3006. 3007-3008. 3009-3010. 3011-3012. 3013-3014. 3015-3016. 3017-3018. 3019-3020. 3021-3022. 3023-3024. 3025-3026. 3027-3028. 3029-3030. 3031-3032. 3033-3034. 3035-3036. 3037-3038. 3039-3040. 3041-3042. 3043-3044. 3045-3046. 3047-3048. 3049-3050. 3051-3052. 3053-3054. 3055-3056. 3057-3058. 3059-3060. 3061-3062. 3063-3064. 3065-3066. 3067-3068. 3069-3070. 3071-3072. 3073-3074. 3075-3076. 3077-3078. 3079-3080. 3081-3082. 3083-3084. 3085-3086. 3087-3088. 3089-3090. 3091-3092. 3093-3094. 3095-3096. 3097-3098. 3099-3100. 3101-3102. 3103-3104. 3105-3106. 3107-3108. 3109-3110. 3111-3112. 3113-3114. 3115-3116. 3117-3118. 3119-3120. 3121-3122. 3123-3124. 3125-3126. 3127-3128. 3129-3130. 3131-3132. 3133-3134. 3135-3136. 3137-3138. 3139-3140. 3141-3142. 3143-3144. 3145-3146. 3147-3148. 3149-3150. 3151-3152. 3153-3154. 3155-3156. 3157-3158. 3159-3160. 3161-3162. 3163-3164. 3165-3166. 3167-3168. 3169-3170. 3171-3172. 3173-3174. 3175-3176. 3177-3178. 3179-3180. 3181-3182. 3183-3184. 3185-3186. 3187-3188. 3189-3190. 3191-3192. 3193-3194. 3195-3196. 3197-3198. 3199-3200. 3201-3202. 3203-3204. 3205-3206. 3207-3208. 3209-3210. 3211-3212. 3213-3214. 3215-3216. 3217-3218. 3219-3220. 3221-3222. 3223-3224. 3225-3226. 3227-3228. 3229-3230. 3231-3232. 3233-3234. 3235-3236. 3237-3238. 3239-3240. 3241-3242. 3243-3244. 3245-3246. 3247-3248. 3249-3250. 3251-3252. 3253-3254. 3255-3256. 3257-3258. 3259-3260. 3261-3262. 3263-3264. 3265-3266. 3267-3268. 3269-3270. 3271-3272. 3273-3274. 3275-3276. 3277-3278. 3279-3280. 3281-3282. 3283-3284. 3285-3286. 3287-3288. 3289-3290. 3291-3292. 3293-3294. 3295-3296. 3297-3298. 3299-3300. 3301-3302. 3303-3304. 3305-3306. 3307-3308. 3309-3310. 3311-3312. 3313-3314. 3315-3316. 3317-3318. 3319-3320. 3321-3322. 3323-3324. 3325-3326. 3327-3328. 3329-3330. 3331-3332. 3333-3334. 3335-3336. 3337-3338. 3339-3340. 3341-3342. 3343-3344. 3345-3346. 3347-3348. 3349-3350. 3351-3352. 3353-3354. 3355-3356. 3357-3358. 3359-3360. 3361-3362. 3363-3364. 3365-3366. 3367-3368. 3369-3370. 3371-3372. 3373-3374. 3375-3376. 3377-3378. 3379-3380. 3381-3382. 3383-3384. 3385-3386. 3387-3388. 3389-3390. 3391-3392. 3393-3394. 3395-3396. 3397-3398. 3399-3400. 3401-3402. 3403-3404. 3405-3406. 3407-3408. 3409-3410. 3411-3412. 3413-3414. 3415-3416. 3417-3418. 3419-3420. 3421-3422. 3423-3424. 3425-3426. 3427-3428. 3429-3430. 3431-3432. 3433-3434. 3435-3436. 3437-3438. 3439-3440. 3441-3442. 3443-3444. 3445-3446. 3447-3448. 3449-3450. 3451-3452. 3453-3454. 3455-3456. 3457-3458. 3459-3460. 3461-3462. 3463-3464. 3465-3466. 3467-3468. 3469-3470. 3471-3472. 3473-3474. 3475-3476. 3477-3478. 3479-3480. 3481-3482. 3483-3484. 3485-3486. 3487-3488. 3489-3490. 3491-3492. 3493-3494. 3495-3496. 3497-3498. 3499-3500. 3501-3502. 3503-3504. 3505-3506. 3507-3508. 3509-3510. 3511-3512. 3513-3514. 3515-3516. 3517-3518. 3519-3520. 3521-3522. 3523-3524. 3525-3526. 3527-3528. 3529-3530. 3531-3532. 3533-3534. 3535-3536. 3537-3538. 3539-3540. 3541-3542. 3543-3544. 3545-3546. 3547-3548. 3549-3550. 3551-3552. 3553-3554. 3555-3556. 3557-3558. 3559-3560. 3561-3562. 3563-3564. 3565-3566. 3567-3568. 3569-3570. 3571-3572. 3573-3574. 3575-3576. 3577-3578. 3579-3580. 3581-3582. 3583-3584. 3585-3586. 3587-3588. 3589-3590. 3591-3592. 3593-3594. 3595-3596. 3597-3598. 3599-3600. 3601-3602. 3603-3604. 3605-3606. 3607-3608. 3609-3610. 3611-3612. 3613-3614. 3615-3616. 3617-3618. 3619-3620. 3621-3622. 3623-3624. 3625-3626. 3627-3628. 3629-3630. 3631-3632. 3633-3634. 3635-3636. 3637-3638. 3639-3640. 3641-3642. 3643-3644. 3645-3646. 3647-3648. 3649-3650. 3651-3652. 3653-3654. 3655-3656. 3657-3658. 3659-3660. 3661-3662. 3663-3664. 3665-3666. 3667-3668. 3669-3670. 3671-3672. 3673-3674. 3675-3676. 3677-3678. 3679-3680. 3681-3682. 3683-3684. 3685-3686. 3687-3688. 3689-3690. 3691-3692. 3693-3694. 3695-3696. 3697-3698. 3699-3700. 3701-3702. 3703-3704. 3705-3706. 3707-3708. 3709-3710. 3711-3712. 3713-3714. 3715-3716. 3717-3718. 3719-3720. 3721-3722. 3723-3724. 3725-3726. 3727-3728. 3729-3730. 3731-3732. 3733-3734. 3735-3736. 3737-3738. 3739-3740. 3741-3742. 3743-3744. 3745-3746. 3747-3748. 3749-3750. 3751-3752. 3753-3754. 3755-3756. 3757-3758. 3759-3760. 3761-3762. 3763-3764. 3765-3766. 3767-3768. 3769-3770. 3771-3772. 3773-3774. 3775-3776. 3777-3778. 3779-3780. 3781-3782. 3783-3784. 3785-3786. 3787-3788. 3789-3790. 3791-3792. 3793-3794. 3795-3796. 3797-3798. 3799-3800. 3801-3802. 3803-3804. 3805-3806. 3807-3808. 3809-3810. 3811-3812. 3813-3814. 3815-3816. 3817-3818. 3819-3820. 3821-3822. 3823-3824. 3825-3826. 3827-3828. 3829-3830. 3831-3832. 3833-3834. 3835-3836. 3837-3838. 3839-3840. 3841-3842. 3843-3844. 3845-3846. 3847-3848. 3849-3850. 3851-3852. 3853-3854. 3855-3856. 3857-3858. 3859-3860. 3861-3862. 3863-3864. 3865-3866. 3867-3868. 3869-3870. 3871-3872. 3873-3874. 3875-3876. 3877-3878. 3879-3880. 3881-3882. 3883-3884. 3885-3886. 3887-3888. 3889-3890. 3891-3892. 3893-3894. 3895-3896. 3897-3898. 3899-3900. 3901-3902. 3903-3904. 3905-3906. 3907-3908. 3909-3910. 3911-3912. 3913-3914. 3915-3916. 3917-3918. 3919-3920. 3921-3922. 3923-3924. 3925-3926. 3927-3928. 3929-3930. 3931-3932. 3933-3934. 3935-3936. 3937-3938. 3939-3940. 3941-3942. 3943-3944. 3945-3946. 3947-3948. 3949-3950. 3951-3952. 3953-3954. 3955-3956. 3957-3958. 3959-3960. 3961-3962. 3963-3964. 3965-3966. 3967-3968. 3969-3970. 3971-3972. 3973-3974. 3975-3976. 3977-3978. 3979-3980. 3981-3982. 3983-3984. 3985-3986. 3987-3988. 3989-3990. 3991-3992. 3993-3994. 3995-3996. 3997-3998. 3999-4000. 4001-4002. 4003-4004. 4005-4006. 4007-4008. 4009-4010. 4011-4012. 4013-4014. 4015-4016. 4017-4018. 4019-4020. 4021-4022. 4023-4024. 4025-4026. 4027-4028. 4029-4030. 4031-4032. 4033-4034. 4035-4036. 4037-4038. 4039-4040. 4041-4042. 4043-4044. 4045-4046. 4047-4048. 4049-4050. 4051-4052. 4053-4054. 4055-4056. 4057-4058. 4059-4060. 4061-4062. 4063-4064. 4065-4066. 4067-4068. 4069-4070. 4071-4072. 4073-4074. 4075-4076. 4077-4078. 4079-4080. 4081-4082. 4083-4084. 4085-4086. 4087-4088. 4089-4090. 4091-4092. 4093-

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

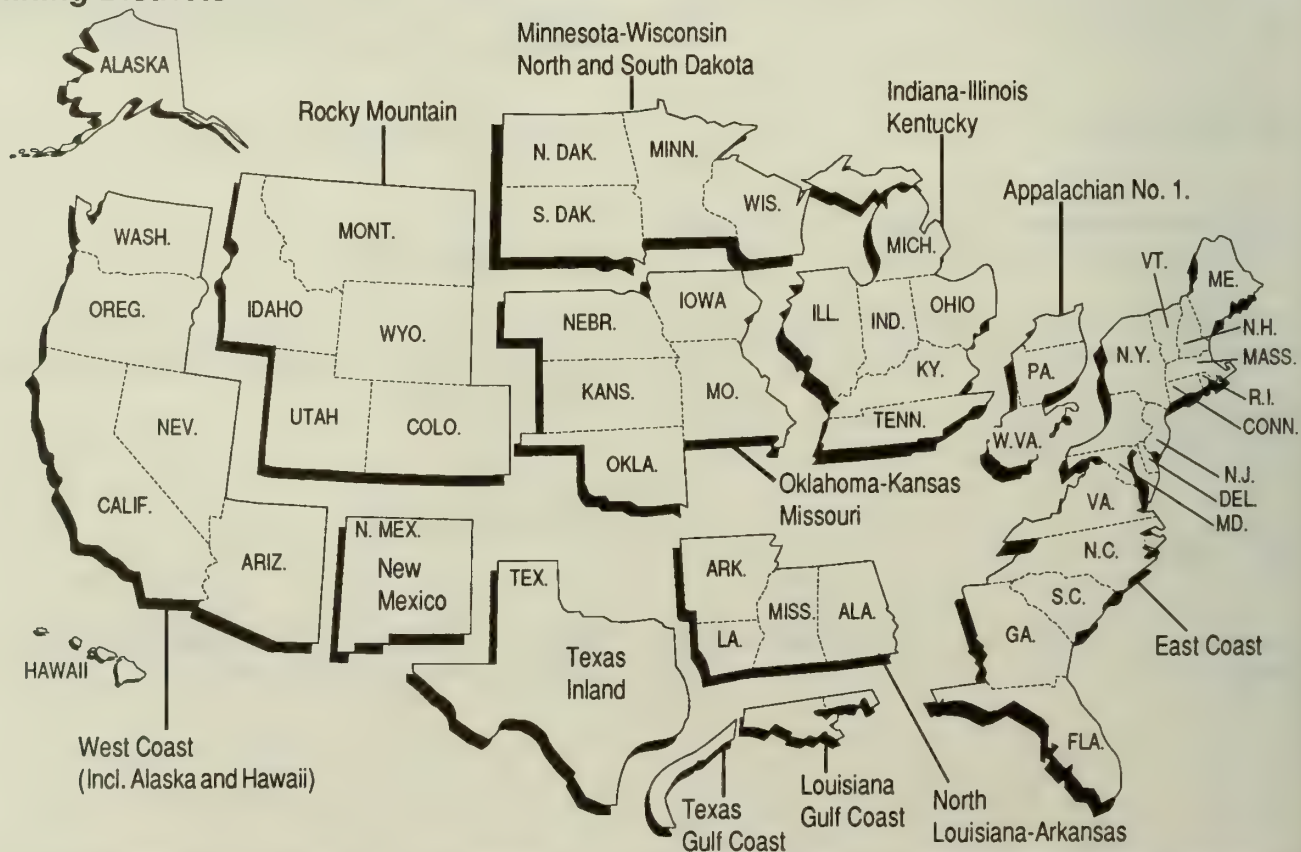
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

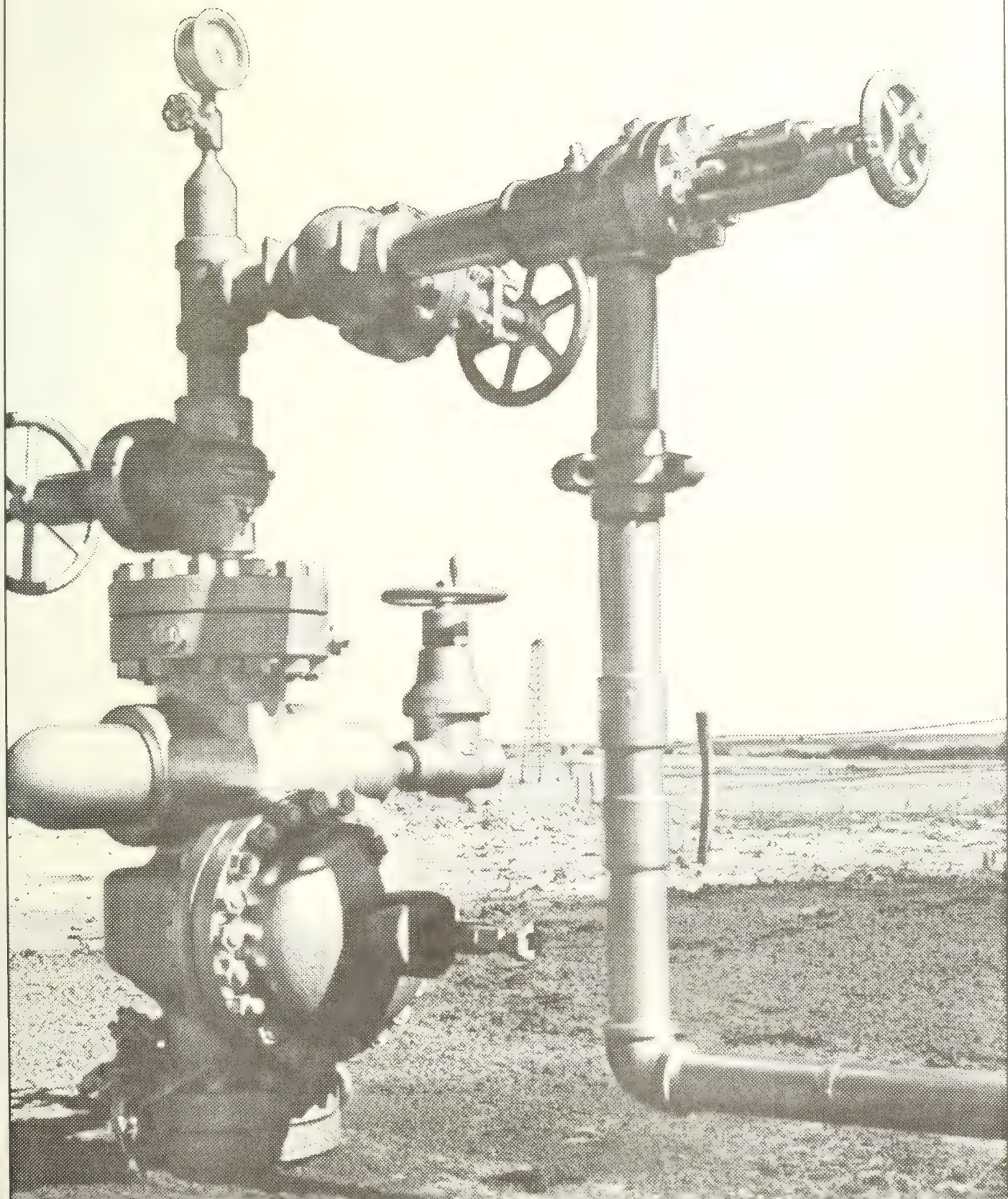


Refining Districts



Appendix B

Explanatory Notes



LIBRARY OF THE
UNIVERSITY OF CHICAGO

Appendix B

Explanatory Notes

Note 1: Data Collection Methodology

Background

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	Weekly Refinery Report
EIA-801	Weekly Bulk Terminal Report
EIA-802	Weekly Product Pipeline Report
EIA-803	Weekly Crude Oil Stocks Report
EIA-804	Weekly Imports Report
EIA-810	Monthly Refinery Report
EIA-811	Monthly Bulk Terminal Report
EIA-812	Monthly Product Pipeline Report
EIA-813	Monthly Crude Oil Report
EIA-814	Monthly Imports Report
EIA-816	Monthly Natural Gas Liquids Report
EIA-817	Monthly Tanker and Barge Movement Report
EIA-820	Annual Refinery Report

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect weekly data on basic refinery operations and on crude oil and major petroleum products stocks and imports. Data from the WPSRS are published in the *Weekly Petroleum Status Report* (WPSR) and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (PSM). A description of the WPSRS survey forms follows in Explanatory Note 1.1.

Forms EIA-810 through 814, 816, and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. These surveys are the primary source of data for the

"Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Explanatory Note 1.2.

Data are also obtained on magnetic tape from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Explanatory Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 using data from an external source. Estimates from the EIA's weekly sample surveys (inaugurated in April 1979) replaced the estimates from the external source for all but the imports series in January 1980, and replaced the imports estimates in June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports all shipments entering the United States. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe which includes all petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. The selected sample size is 153.

EIA-801: Based on the EIA-811 universe which includes every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. The selected sample size is 70.

EIA-802: Based on the EIA-812 universe which includes all product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. The selected sample size is 43.

EIA-803: Based on the EIA-813 universe which includes companies that carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The selected sample size is 79.

EIA-804: Based on the EIA-814 universe which covers each company, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The selected sample size is 83.

Sampling Method

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period begins and ends each Friday at 7 a.m. All canvassed firms must file reports by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month, (M_t), is divided by the amount reported by the sample of companies for the most recent month, (M_s). The result is multiplied by the amount reported by the sample of companies for the current week, (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly refinery inputs and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratios multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for selected products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rate

The response rate for the published estimates is usually between 97 and 100 percent of the sampled respondents.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other

survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 260 respondents report on the EIA-810.

EIA-811: Every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 320 respondents report on the EIA-811.

EIA-812: All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the EIA-812.

EIA-813: All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 180 respondents report on the EIA-813.

EIA-814: All companies, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. Approximately 1,500 respondents report on the EIA-814.

EIA-816: All facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 1,050 respondents report on the EIA-816.

EIA-817: All companies that have custody of crude oil or petroleum products transported by tanker or barge between

PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 50 respondents report on the EIA-817.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Every three years an extensive survey is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, Federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month, with the exception of the EIA-814 which is due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed for companies that do not respond to EIA Forms 810-813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the EIA-814 and 817 are not imputed.

Response Rate

The response rate is generally 99 to 100 percent by the time the data are first published. Nonrespondents are contacted in

writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data tapes are the only source of export statistics and are used to augment the import data collected by the EIA.

Import Statistics (IM-145)

Coverage

Census import statistics used in the PSM reflect both government and nongovernment imports of merchandise from foreign countries and U.S. possessions into the United States (the 50 States and the District of Columbia) without regard to whether or not a commercial transaction is involved. The following types of transactions are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Census export statistics used in the PSM reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

1. Merchandise shipped in-transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
2. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census. Exporters are required to file export documents with Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey descriptions and other details, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form EIA-814, *Monthly Imports Report*. In addition, imports of NGL's are obtained from the Census Bureau Tabulation IM-145. The Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. Additional data taken from the IM-145 are relatively small quantities of naphtha-type and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the Form EIA-814 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks. A negative result (-) would represent a buildup of stocks. For a description of survey forms used to make stock withdrawal or addition calculations, see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports, and stock withdrawals. Crude oil disposition is the sum of exports, refinery input, losses, stock additions, and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supply from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. All except four of the producing States report data monthly. These States are New York, Ohio, Pennsylvania, and Virginia. Estimates of monthly production for these States are made using methodologies explained in the next paragraph. After the end of each calendar year, the monthly numbers are updated using the annual reports of the State conservation agencies and the Minerals Management Service.

Table 11 of this publication provides information on crude oil production for the most recent month for which State values are available. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly State crude oil production data become available. In order to present more timely crude oil production values, the Energy Information Administration prepares a forecast estimate on the first day of the reference month and revised estimates approximately 75 days later which are based on historical production patterns and are summed to obtain national and Petroleum Administration for Defense District (PADD) level crude oil production values. The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. The forecast estimates are published in the *Weekly Petroleum Status Report* and are also used to calculate the preliminary estimates in the "Summary Statistics" section of the *Petroleum Supply Monthly*.

These forecast estimates are then replaced by the revised estimates in the next issue of the *Petroleum Supply Monthly*.

Table B1 is intended to provide further insight into EIA's estimates of monthly U.S. crude oil production. It shows (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon data collected on Form EIA-182, *Domestic Crude Oil First Purchase Report*, is

used in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the reference month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available 74 days after the reference month and includes imputation as

needed. A final revision is published concurrent with publication of EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is used in the *Petroleum Supply Annual*.

Table B1. U.S. Crude Oil¹ Production Estimates and Reported State² Data by Month (Thousand Barrels per Day)

Date of Data Availability	Month of Production																	
	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88
	Reported State Data ³																	
3-14-87	0																	
4-14-87	1942	0																
5-14-87	4844	2033	0															
6-14-87	7291	4813	2057	0														
7-14-87	7291	7579	4618	2068	0													
8-14-87	8068	7667	7615	4654	2012	0												
9-14-87	8068	8152	8110	7218	4665	1999	0											
10-14-87	8290	8356	8288	8210	7672	4264	1997	0										
11-14-87	8291	8356	8412	8211	8139	7276	2971	1945	0									
12-14-87	8292	8369	8411	8255	8140	7752	7724	5008	2088	0								
1-14-88	8292	8369	8412	8255	8179	7756	7731	7252	4866	2152	0							
2-14-88	8294	8370	8412	8256	8191	8095	8034	8039	7703	5296	2127	0						
3-14-88	8294	8370	8412	8256	8191	8095	8071	8039	8190	8205	3208	2086	0					
4-14-88	8268	8342	8377	8218	8157	8133	8093	8090	8249	8286	8204	5111	2161	0				
5-14-88	8389	8464	8498	8336	8279	8251	8210	8205	8365	8401	8318	7156	5743	2151	0			
6-14-88	8389	8464	8498	8336	8279	8251	8210	8206	8365	8403	8318	8086	8103	5767	2095	0		
7-14-88	8389	8464	8498	8336	8279	8251	8210	8206	8365	8403	8319	8079	8183	7270	2686	2087	0	0
	Producing States Without Reported Monthly Production ⁴																	
7-14-88	0	0	0	0	0	0	0	0	0	0	0	6	6	9	20	29	33	33
	Month of Production																	
Type of Estimate	2-87	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88
	Production Estimate																	
Original ⁵	8384	8336	8361	8296	8303	8287	8204	8162	8281	8283	8348	8395	8353	8306	8269	8240	8210	8189
Interim ⁶	8318	8349	8426	8305	8263	8242	8190	8190	8293	8330	8340	8245	8376	8347	8268	8203		
Form EIA-182																		
Initial	8079	8214	8287	8149	8168	8078	8022	8110	8151	8162	8144	8017	8239	8138	8106	8009		
Revised	8210	8266	8306	8161	8178	8082	8032	8084	8153	8173	8180	8048	8206	8134	8099			
Final ⁷	8389	8464	8498	8336	8279	8251	8210	8205	8364	8397	8318							

¹ Includes lease condensate.

² Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

³ Includes EIA prorated monthly production in 1987 (annual average of 115 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

⁴ Michigan, New York, Ohio, Pennsylvania, and Virginia are counted as having monthly reported data in 1987 after their annual reports were received.

⁵ Original estimates were made on the first of each month.

⁶ January and February 1987 interim estimates were made on March 5 and April 6, respectively. Interim estimates after February 1987 were made 44 days after the end of the production month.

⁷ Published in the *Petroleum Supply Annual* 1987 DOE/EIA 0340(87)/2.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries reported for all refineries on Form EIA-810, *Monthly Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, and the Virgin Islands, which are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Product supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production net having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in-transit is also included. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers. For survey descriptions and other details, see Explanatory Note 1.2.

Note 6: Average Stock Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, residual oil, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels are described below.

The graphs displaying inventory levels of crude oil and petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the report inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases, were derived using monthly data from 1979-1985.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the *average range* is twice the standard deviation.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other details, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the "Summary Statistics" section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition. statistics on the referenced line appear in Table 1 of the "Detailed Statistics," except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Gross Imports Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted for Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- Crude Losses and Product Supplied appear as labeled in Table 4.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.
- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, ethylene, propane, propylene, butane, butylene, and isobutane. The statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases. The statistics on the referenced line are aggregated from Table 4 of the "Detailed Statistics," except where noted.

- Total production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.
- Line (5): *SPR Imports* are reported on survey Form EIA-814.
- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude oil losses minus crude oil product supplied in Table 2.
- Line (14): Natural Gas Plant Liquids (NGPL) *Field Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.
- Line (15): NGPL *Net Imports* equals the sum of the imports of pentanes plus minus the exports of pentanes plus in Table 2.
- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the stock withdrawal (+) or addition (-) of pentanes plus in Table 2.
- Line (17): *Total NGPL Supply* equals the sum of lines (14), (15), and (16).
- Line (18): *Other Liquids Stock Withdrawal (+) or Addition (-)* equals the aggregate stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components in Table 2.
- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.
- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).
- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of natural gas

liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus field production of other liquids; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.
- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.
- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).
- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of natural gas liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus total field production of other liquids; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.
- Line (29): *Refined Products Stock Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.
- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.
- Lines (31) through (34): Equal the respective products supplied in Table 2.
- Line (35): *Other Products Supplied* equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, naphtha <400 Deg. F. for petrochemical feedstock use, other oils >400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products supplied in Table 2.
- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.
- The sum of lines (38) and (39): *Stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by

the *Strategic Petroleum Reserve* equals ending stocks of crude oil in Table 2.

- Line (43): *Stocks of Finished Refined Products* equals the sum of liquefied petroleum gases and finished petroleum products stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1,462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the "Summary Statistics," is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the "Summary Statistics." This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108.
- Other Petroleum Products: 1983 - 248.

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1981 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA

and API estimates of "recast" motor gasoline product supplied.

EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ¹
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

¹FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceeded the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied (Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,83
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: Natural Gas Liquids Reporting Changes

Beginning in January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record-keeping practices used by the industry. The following table shows the product category under the new and old basis. Four PSRS surveys were modified beginning in January 1984. They were:

- EIA-810 *Monthly Refinery Report*
- EIA-811 *Monthly Bulk Terminal Report*
- EIA-812 *Monthly Product Pipeline Report*
- EIA-816 *Monthly Natural Gas Liquids Report*

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Adjustments are applied to NGL imports data to make them consistent with the revised reporting system (See Explanatory Note 14).

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
1979-1983 Product Basis					
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Note 14: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquids (NGL) supply data, moving from a nine-product slate basis to a five-component slate basis that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first six months of 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by

Table B5. Algorithm for Allocating NGL Imports/Exports (Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline An Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15: Addition of Crude Oil Pipeline Movements Data

Beginning in January 1985, inter-PAD District pipeline movements of crude oil were included in the PSM. Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the PSM that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6-10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products." 1985 crude oil imports and unfinished oil imports in Tables 6 through 10 are now reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts." A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes net movements by pipeline as well as by tanker and barge.

Note 16: 1986 Changes in Petroleum Industry Reporting

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks ¹ (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGL's & LRG's	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

¹ Stocks as of December 31, 1985.

Also, beginning in January 1986, a major integrated petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities have been combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which will show a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes have been made to tables in the PSM either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes are:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
 - Alaskan crude oil receipts are now shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
 - The "petrochemical feedstock use" and "other use" are no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
 - Imports of unfinished oils are now separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" are shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely and consistent energy information.

Changes in Data Collection and Reporting Systems

- Fresh feed input to catalytic cracking units, hydrocracking units and cokers were added to the Form EIA-810, *Monthly Refinery Report*.

Changes in Publications

- The "Appalachian No. 2" Refining District has been combined with the "Indiana, Illinois, Kentucky," Refining District. This affects PSM Tables 12-15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units and cokers are included in Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during

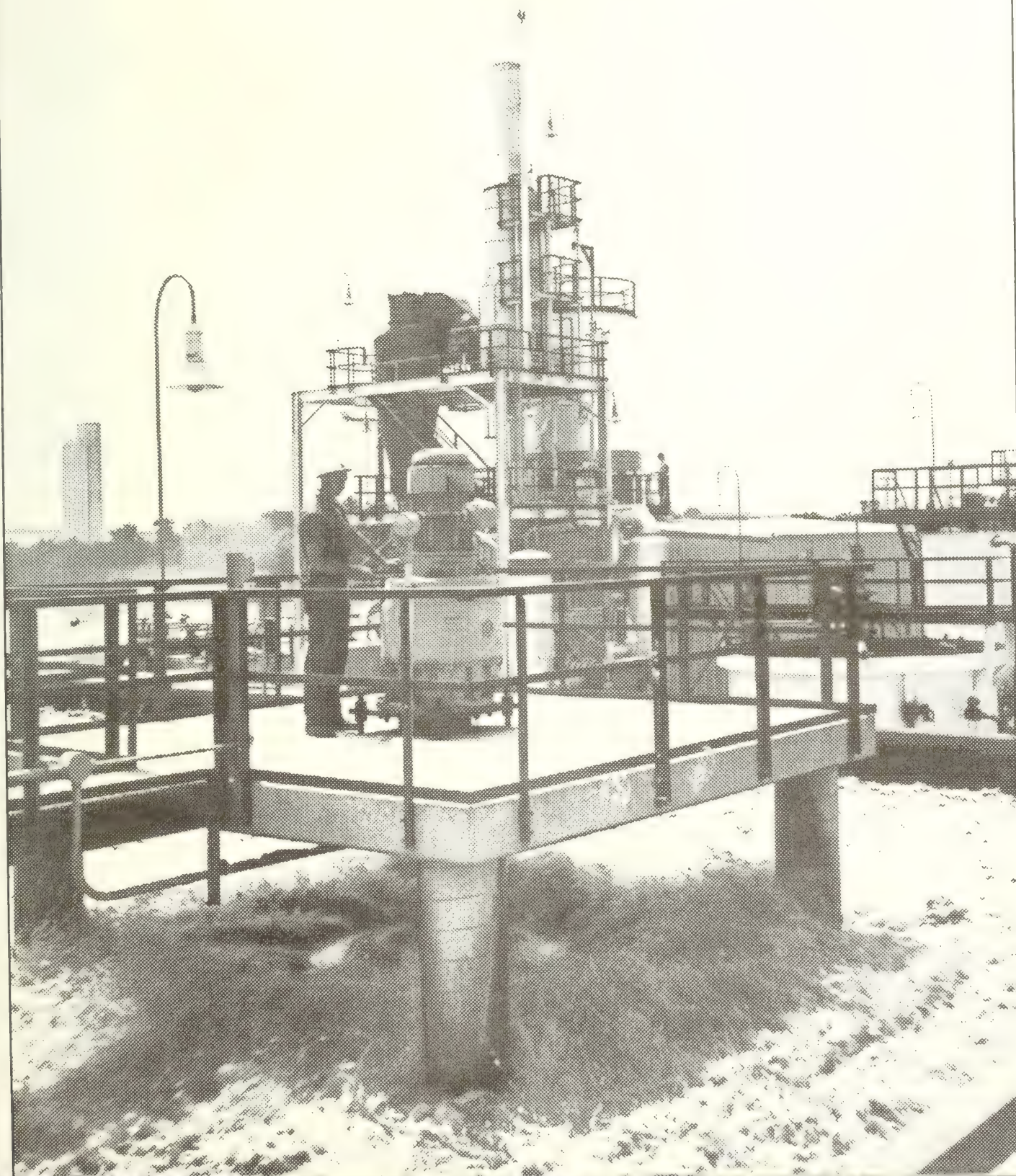
1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all Foreign Trade Zone facilities located within the 50 United States are considered domestic entities and are included in statistics in the PSM. The principal differences in the PSM data series are about a 1 percent increase in crude oil imports and a 3 percent decrease in product imports.

LIBRARY OF THE UNIVERSITY OF CHICAGO

Appendix C

Impact of
Resubmissions
on Major
Series, 1988



[Faint vertical text, likely bleed-through from the reverse side]

Table C1. Impact of Resubmissions on Major Series, 1988
(Thousand Barrels per Day, Except Where Noted)

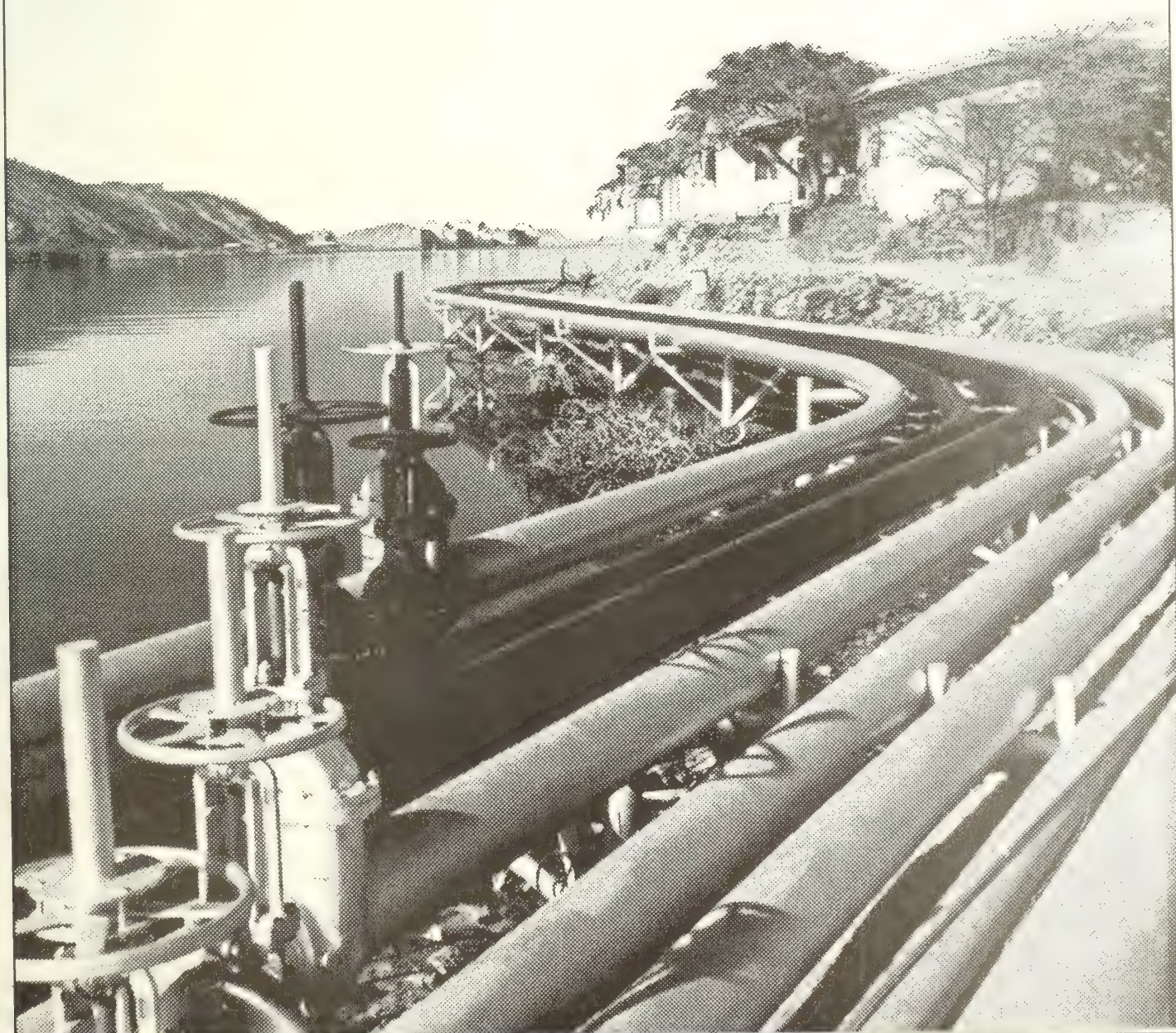
Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs													
Crude Oil	12,975	0	12,715	-20	13,072	8	--	--	--	--	--	--	-4
LPG's	366	-8	336	6	266	2	--	--	--	--	--	--	0
Production													
LPG's	1,723	2	1,757	6	1,802	8	--	--	--	--	--	--	5
Finished Motor Gasoline	6,723	7	6,736	0	6,695	20	--	--	--	--	--	--	9
Naphtha-Type Jet Fuel	184	0	178	0	209	2	--	--	--	--	--	--	1
Kerosene-Type Jet Fuel	1,231	0	1,205	0	1,243	0	--	--	--	--	--	--	0
Kerosene	104	0	118	0	68	0	--	--	--	--	--	--	0
Distillate Fuel Oil	3,008	0	2,683	-9	2,720	-10	--	--	--	--	--	--	-6
Residual Fuel Oil	1,009	0	997	-6	944	0	--	--	--	--	--	--	-2
Imports													
Crude Oil	4,619	50	4,692	27	4,788	96	--	--	--	--	--	--	58
Finished Motor Gasoline	324	0	365	0	318	0	--	--	--	--	--	--	0
Naphtha-Type Jet Fuel	3	0	3	0	2	0	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	80	0	64	4	95	0	--	--	--	--	--	--	1
Distillate Fuel Oil	355	0	330	8	243	-2	--	--	--	--	--	--	2
Residual Fuel Oil	737	22	792	30	610	14	--	--	--	--	--	--	22
Other Products	556	3	503	2	506	14	--	--	--	--	--	--	6
Stocks (Thousand Barrels)													
Crude Oil	345,479	84	347,835	123	353,625	131	--	--	--	--	--	--	113
Unfinished Oils	95,338	0	97,786	41	102,134	4	--	--	--	--	--	--	15
LPG's	80,741	-1,561	70,191	33	68,808	92	--	--	--	--	--	--	-479
Total Motor Gasoline	239,464	257	240,661	-183	231,258	-27	--	--	--	--	--	--	16
Naphtha-Type Jet Fuel	8,366	-170	6,731	-131	7,156	14	--	--	--	--	--	--	-96
Kerosene-Type Jet Fuel	37,912	-34	36,889	-27	39,548	4	--	--	--	--	--	--	-19
Distillate Fuel Oil	127,155	278	109,640	262	89,312	-96	--	--	--	--	--	--	148
Residual Fuel Oil	46,628	-56	45,465	-37	44,057	4	--	--	--	--	--	--	-30
Product Supplied													
LPG's	2,069	60	1,982	-57	1,710	4	--	--	--	--	--	--	2
Finished Motor Gasoline	6,679	-1	7,004	13	7,265	16	--	--	--	--	--	--	9
Naphtha-Type Jet Fuel	173	6	237	-1	197	-3	--	--	--	--	--	--	1
Kerosene-Type Jet Fuel	1,360	1	1,270	4	1,200	-1	--	--	--	--	--	--	1
Distillate Fuel Oil	3,517	-9	3,511	0	3,544	0	--	--	--	--	--	--	-3
Residual Fuel Oil	1,578	24	1,601	24	1,434	12	--	--	--	--	--	--	20
Major Products Supplied	15,376	81	15,605	-18	15,350	29	--	--	--	--	--	--	31

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Glossary





Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}-(\text{CH})_n\text{-OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr.}_{60^\circ \text{F}/60^\circ \text{F}}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cut-back asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C₄H₈), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 degrees F to 750 degrees F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. See *Motor Gasoline (Finished)*.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 degrees F to 1000 degrees F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See *Butane*.

Isohexane. A saturated branch-chain hydrocarbon, (C₆H₁₄). It is a colorless liquid that boils at a temperature of 156.2 degrees F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C₄), an alkylation process feedstock, and normal pentane and hexane into

isopentane, (C₅), and isohexane, (C₆), high-octane gasoline components.

Isopentane. See *Natural Gasoline and Isopentane*.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10-percent recovery point, a final boiling point of 572 degrees F, and a minimum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 degrees F at the 10-percent recovery point and a final maximum boiling point of 572 degrees F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 degrees F to 650 degrees F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants"

includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. A product of hydrotreating, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a range in distillation temperatures from 122 to 158 degrees F at the 10-percent recovery point and from 365 to 374 degrees F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.

Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Naphtha-type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 degrees F at the 20-percent recovery point and 470 degrees F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See *Butane*.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemi-

cals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F" and "Other oils over 400 degrees F."

Naphtha-Less Than 400 Degrees F. A naphtha with a boiling range of less than 400 degrees F that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. Oils with a boiling range of over 400 degrees F that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 degrees F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank and is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per barrel (42 U.S. gallons).

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C₆H₅CH₃), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas, kerosene, light and heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 degrees F (D1321)-60 maximum. Viscosity at 210 degrees F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscos-

ity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Working Storage Capacity. The volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, $(C_6H_4Y(CH_3)_2)$, produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

Government Books **FOR YOU**

Take advantage of the wealth of knowledge available from your Government. The Superintendent of

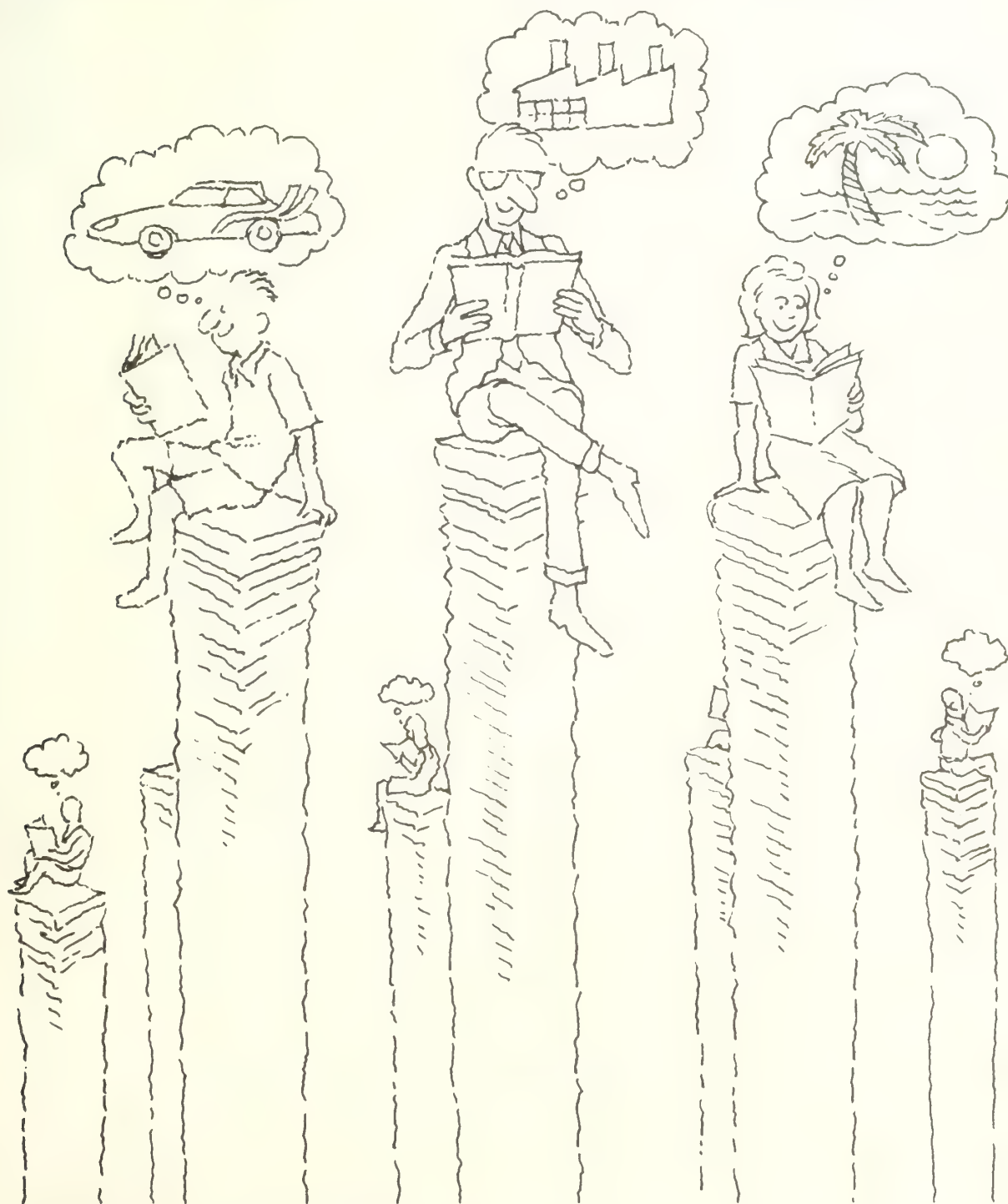
Documents produces a catalog that tells you about new and popular books sold by the Government.

Hundreds of books on agriculture, business, children, energy, health, history, space, and much, much more. For

a free copy of this catalog, write—

Free Catalog

P.O. Box 37000
Washington, DC 20013-7000



1847-1848

AFTER THE DECLARATION OF INDEPENDENCE OUR FOUNDING FATHERS WROTE SOMETHING EVEN MORE IMPORTANT.

Ten years after the signing of the Declaration of Independence our founding fathers created what historians have called the greatest single document struck off by the hand and mind of man.



Our founding fathers created the Constitution of the United States.

For the first time in history, power was granted by the people to the government, and not by the government to the people.

The freedom unleashed by the Constitution allowed Americans to develop their talents and abilities to the fullest. And attain what is now known the world over as the *American Dream*.

As we commemorate the Bicentennial of the Constitution, there is no better way for you as an American to reaffirm the principles for which our country stands than to learn more about the Constitution.

The words we live by.

THE CONSTITUTION

The words we live by

To learn more about the Constitution write: Constitution, Washington, D.C. 20599. The Commission on the Bicentennial of The U.S. Constitution. 

Forrestal Building, EI-231
Washington, DC 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



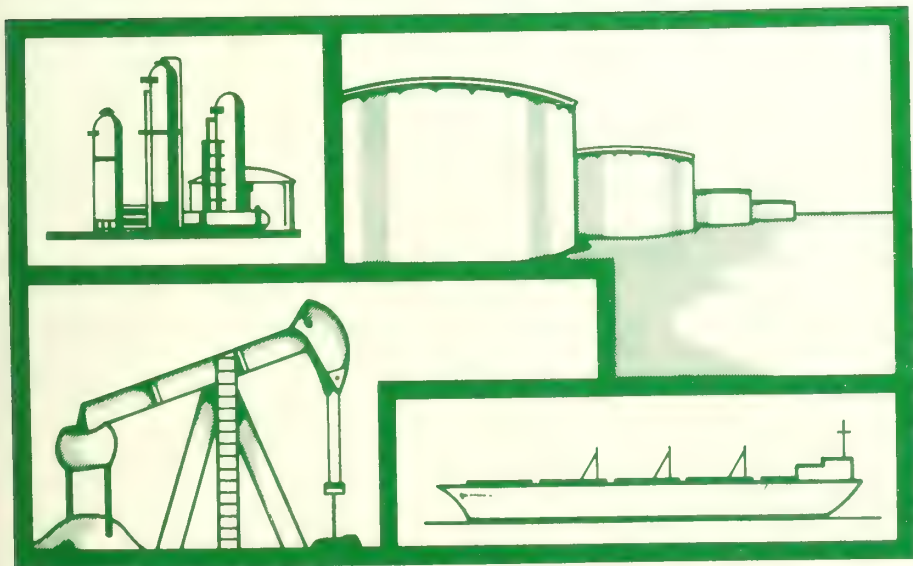
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C. 20585

AT SECOND-CLASS
RATES PENDING

Energy Information Administration

Petroleum Supply Monthly

June 1988



Library of the

JUN 6 1988

University of Illinois
at Urbana-Champaign

This publication is available from the Superintendent of Documents, U.S. Government Printing Office (GPO). Ordering information and purchase of this and other Energy Information Administration (EIA) publications may be obtained from the GPO or the EIA's National Energy Information Center (NEIC). Questions on energy statistics should be directed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, EI-231
Energy Information Administration
Forrestal Building
Room 1F-048
Washington, DC 20585
(202)586-8800

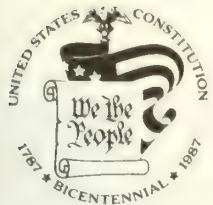
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202)783-3238

We thank the following for the use of their photographs and illustrations in this report.

Cities Service Co., page ix (courtesy of the American Petroleum Institute).
Conoco Inc., page xii (courtesy of the American Petroleum Institute).
Phillips Petroleum Co., page xv (courtesy of the American Petroleum Institute).
Champlin Petroleum Co., page xvii (courtesy of the American Petroleum Institute).
Standard Oil Co., Page 1 (courtesy of the American Petroleum Institute).
PPG Industries, Inc., page 71 (courtesy of the American Petroleum Institute).
Standard Oil Co., page 75 (courtesy of the American Petroleum Institute).
Texaco Inc., page 93 (courtesy of the American Petroleum Institute).
Atlantic Richfield Co., page 97 (courtesy of the American Petroleum Institute).

Released for printing: August 25, 1988

The *Petroleum Supply Monthly* (ISSN 0733-0553) is published monthly by the Energy Information Administration, 1000 Independence Avenue, SW, Washington, DC 20585, and sells for \$49.00 per year (price is subject to change without advance notice). Application to mail at second-class postage rates is pending at Washington, DC 20066-9998, and at additional mailing offices. POSTMASTER: Send address changes to *Petroleum Supply Monthly*, Energy Information Administration, EI-231, Independence Avenue, SW, Washington, DC 20585.



DOE/EIA-0109(88/06)
Distribution Category UC-98

Petroleum Supply Monthly

June 1988

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any policy position of the Department of Energy or any other organization.

The Library of the
JUN 6 1989
University of Illinois
at Urbana-Champaign

Energy Information Administration
Electronic Publication System (EPUB)
User Instructions

Selected *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), *Weekly Coal Production* (WCP), and *Electric Power Monthly* (EPM) statistics are now available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202)586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a holiday) after 5:00 p.m. Monthly petroleum supply data for the current month are also provided and are updated by 5:00 p.m. on the 24th of each month. Monthly statistics from the *Electric Power Monthly* are available on or about the first working day of each month. Questions or comments on petroleum data should be directed to T.C. Swann at (202)586-1155. Questions or comments on coal data should be directed to Hans Becker at (202)586-6874. Questions on electricity data should be directed to Dean Fennell at (202)586-5311.

Access Instructions:

- 1) DIAL (202)586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```
***                                     ***
***                                     ***
***      WELCOME TO THE               ***
***      ENERGY INFORMATION ADMINISTRATION ***
***      ELECTRONIC PUBLICATION SYSTEM ***
***                                     ***
```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT
PSMR - PETROLEUM SUPPLY MONTHLY
STKS - PSM STATE STOCKS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT
EPMS - U.S. ELECTRIC POWER STATISTICS

PLEASE ENTER THE DESIRED REPORT ID... PSMR

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

SWP1081 LOGON IN PROGRESS AT 13:23:22 ON MAY 9, 1984
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED MONTHLY STATISTICS FROM PETROLEUM SUPPLY MONTHLY (PSM) SYSTEM. THIS SYSTEM WILL DISPLAY THE MOST RECENT PSM DATA FOR TABLES 4, 11, 18, AND 24. PLEASE TURN ON YOUR PRINTER NOW IF YOU WISH TO OBTAIN HARD COPY OUTPUT.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:

- 7 Data Bits
- 1 Stop Bit
- Even Parity

EIA Petroleum Data Available In Machine-Readable Files

Petroleum supply statistics are available on five magnetic tapes. One tape contains final 1983 through 1986 petroleum supply statistics by month, taken from the *Petroleum Supply Annual*; the second contains preliminary 1987 and 1988 statistics to date by month, from the *Petroleum Supply Monthly*. Three additional tapes contain current and historical statistics on imports of crude oil and petroleum products into the United States and Puerto Rico. The current import tape contains preliminary 1987 and 1988 statistics to date by month. The two historical import tapes contain final statistics by month. One tape contains statistics for the years 1977 through 1985; the second contains 1986 statistics. The current tapes are updated each month. All tapes are fully documented.

Tapes are sold for \$200 each and should be referenced by National Technical Information Service (NTIS) number:

<i>Petroleum Supply Annual</i> -- 1983-1987	PB88-206719
<i>Petroleum Supply Monthly</i> -- Preliminary (1988)	PB88-207501
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985	PB87-147781
Oil Imports into the United States and Puerto Rico, Annual -- 1986-1987	PB88-207485
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1988)	PB88-207493

To order, contact:

National Technical Information Service (NTIS)
Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Stephen Patterson	(202) 586-5994
Supply and Disposition	Stephen Patterson	(202) 586-5994
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Nancy Masterson	(202) 586-8393
Imports	Claudette Graham	(202) 586-9649
Exports	T. C. Swann	(202) 586-1155
Stocks	Beverly Harris	(202) 586-5130
Transportation	Chris Gray	(202) 586-8995

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Contents

	Page
Highlights	xi
Petroleum Focus	
Petroleum Supply Summary	xix
Tables	
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview	2
S2. Crude Oil Supply and Disposition	6
S3. Crude Oil and Petroleum Product Imports	8
S4. Finished Motor Gasoline Supply and Disposition	11
S5. Distillate Fuel Oil Supply and Disposition	13
S6. Residual Fuel Oil Supply and Disposition	15
S7. Liquefied Petroleum Gases Supply and Disposition	17
S8. Other Petroleum Products Supply and Disposition	18
Sources of Summary Statistics	19
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I	28
7. PAD District II	29
8. PAD District III	30
9. PAD District IV	31
10. PAD District V	32
Production of Crude Oil	
11. Production of Crude Oil (Including Lease Condensate) by PAD District and State	33
Natural Gas Processing	
12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District	34
Refinery Operations	
13. Refinery Input of Crude Oil and Petroleum Products by PAD District	35
14. Refinery Production of Petroleum Products by PAD District	36
15. Percent Refinery Yield of Petroleum Products by PAD District	37
Imports of Crude Oil and Petroleum Products	
16. Imports of Crude Oil and Petroleum Products by PAD District	38
17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District	39
18. Imports of Crude Oil and Petroleum Products by Source and PAD District	40
19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District	45
Exports of Crude Oil and Petroleum Products	
20. Exports of Crude Oil and Petroleum Products by PAD District	52
21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District	53
22. Exports of Crude Oil and Petroleum Products by Destination	54
23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination	56

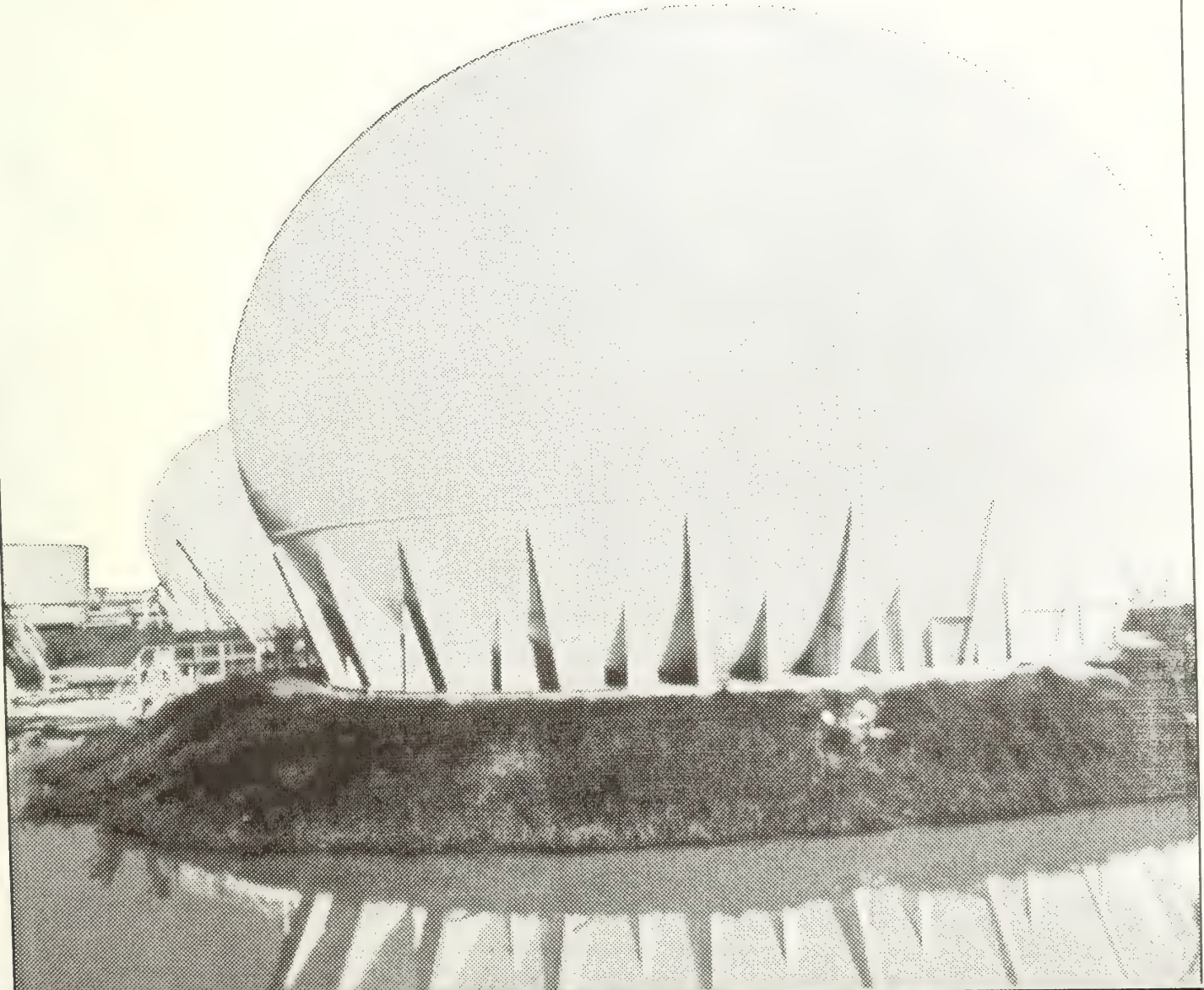
	Page
Stocks	
24. Stocks of Crude Oil and Petroleum Products by PAD District	58
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	63
Movements of Crude Oil and Petroleum Products	
26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	64
27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts	65
28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts	65
29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	66
Residual Fuel Oil by Sulfur Content	
30. Production of Residual Fuel Oil by Sulfur Content by PAD District	67
31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District	67
32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content ...	67
33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin	68
34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry	69
Illustrations	
S1. Petroleum Overview	4
S2. Petroleum Products Supplied	4
S3. Crude Oil Supply and Disposition	5
S4. Crude Oil Ending Stocks	5
S5. Finished Motor Gasoline Supply and Disposition	10
S6. Motor Gasoline Ending Stocks	10
S7. Distillate Fuel Oil Supply and Disposition	12
S8. Distillate Fuel Oil Ending Stocks	12
S9. Residual Fuel Oil Supply and Disposition	14
S10. Residual Fuel Oil Ending Stocks	14
S11. Liquefied Petroleum Gases Supply and Disposition	16
S12. Liquefied Petroleum Gases Ending Stocks	16
Appendices	
A. District Descriptions and Maps	73
B. Explanatory Notes	77
C. Impact of Resubmissions on Major Series, 1988	95
Glossary	
Definitions of Petroleum Products and Other Terms	99

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1985
Motor Gasoline Outlook for Summer 1985	February 1985
Refinery Capacity Trends and Outlook	March 1985
Mid-Year Petroleum Review	May 1985
Timeliness and Accuracy of Petroleum Supply Data	June 1985
Distillate Fuel Oil Trends	July 1985
World Oil Price and Inventory Cycles	August 1985
Petroleum Storage Technology	August 1985
Comparison of Independent Statistics on Petroleum Supply	September 1985
U.S. Petroleum Developments: 1985	November 1985
Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988
Motor Gasoline Trends Through 1987	February 1988

Highlights



Library of the University of California

Highlights

Total U.S. demand for petroleum products (as measured by product supplied) averaged 17.1 million barrels per day in June 1988, more than 0.9 million barrels per day above the average for May and 0.2 million barrels per day above the average for June 1987. For the first 6 months of 1988, total U.S. demand averaged 17.0 million barrels per day, 2.9 percent higher than for the comparable period in 1987.

Other highlights include the following:

- Finished motor gasoline demand for June was 7.8 million barrels per day, the highest monthly level recorded since August 1978.
- Crude oil imports (excluding SPR) for the first 6 months of this year averaged 4.9 million barrels per day, 0.7 million barrels per day, or 17.4 percent, above the average for the first 6 months of 1987.

- Refinery utilization averaged 83.9 percent in the first half of 1988, compared with 81.6 percent for the first half of 1987.
- During June, drought conditions along the Mississippi River and its tributaries had no major impact on the petroleum industry's ability to produce and deliver petroleum products.

Product Supplied

The increase of 0.6 million barrels per day in motor gasoline demand accounts for over 60 percent of the increase in total product supplied from May to June (Table H1). Motor gasoline demand averaged 7.8 million barrels per day in June compared to 7.3 million barrels per day in May. June typically

Table H1. Production, Imports, Stock Change, and Product Supplied: June Versus May 1988
(Million Barrels per Day)

Product Category	June 1988				May 1988				Difference (June minus May)			
	Production	Imports	Stock Change ¹	Product Supplied	Production	Imports	Stock Change ¹	Product Supplied	Production	Imports	Stock Change ¹	Product Supplied
Motor Gasoline	7.0	0.4	0.5	7.8	6.8	0.4	(s)	7.3	0.1	(s)	0.5	0.6
Distillate Fuel Oil	2.9	0.2	-0.2	2.8	2.9	0.2	-0.3	2.8	(s)	(s)	0.1	0.1
Kero-Jet Fuel	1.1	0.1	(s)	1.2	1.1	0.1	(s)	1.2	0.1	(s)	(s)	(s)
Residual Fuel Oil	0.9	0.3	0.1	1.1	0.9	0.4	-0.1	0.9	(s)	-0.1	0.2	0.2
Propane	0.8	0.1	-0.2	0.7	0.9	0.1	-0.2	0.7	(s)	(s)	(s)	(s)
Asphalt/Road Oil	0.6	(s)	0.1	0.7	0.5	(s)	(s)	0.5	0.1	(s)	0.1	0.2
Total Products	16.8	1.8	0.1	17.1	16.5	2.0	-1.0	16.1	0.3	-0.2	1.2	0.9

¹ A positive number indicates a stock decrease and a negative number indicates a stock increase.

(s) = Less than 50,000 barrels per day.

Note: Totals may not equal the sum of their components due to independent rounding.

marks the beginning of the summer driving season. Most of the increased demand was met by drawing on stocks, which fell an average of nearly 0.5 million barrels per day. For the first half of 1988, motor gasoline demand averaged 7.2 million barrels per day, 1.9 percent higher than for the first half of 1987.

Distillate fuel oil demand averaged 2.8 million barrels per day in June, an increase of almost 0.1 million barrels per day above the May level. Compared with distillate demand in the first half of 1987, distillate demand in the first half of 1988 was 4.4 percent higher, and averaged 3.2 million barrels per day. At least two factors contributed to this increase in distillate demand. First, a change after April 1 in the procedures for collecting an excise tax of 15.1 cents per gallon on diesel fuel encouraged one-time stockpiling by farmers, oil-drilling

companies, and other off-road users. A second and more important factor was the continued growth in diesel fuel consumption by the transportation sector.

Steady growth (in miles traveled) by the airline industry has boosted kerosene-type jet fuel demand in the first 6 months of 1988 to over 1.2 million barrels per day, 5.4 percent higher than during the same period last year. This increase is primarily the result of lower air fares and higher personal incomes.

The demand for residual fuel oil averaged 1.1 million barrels per day in June, nearly 0.2 million barrels per day higher than in May. A stock swing of 0.2 million barrels per day -- from a stock buildup of 0.1 million barrels per day in May to a stock withdrawal of more than 0.1 million barrels in June -- helped



Demand for kerosene-type jet fuel averaged over 1.2 million barrels per day during the first half of 1988, 5.4 percent higher than during the first half of 1987. A ground-crew member is shown fueling a commercial airliner.

satisfy the rise in demand during June. Residual fuel oil demand for the first half of 1988 averaged 1.3 million barrels per day, up 3.4 percent from the first half of 1987. Much of this increase was due to the improved competitive position of residual fuel oil (compared with natural gas) in some utility and industrial markets during the first quarter of 1988.

Propane demand changed only marginally in June compared with the May level, averaging 0.7 million barrels per day. Stocks of propane increased slightly over 0.2 million barrels per day in June. This is the third consecutive monthly increase in stocks of over 0.2 million barrels per day. Propane stocks grew by 21.9 million barrels during the 3-month period from April through June 1988. Propane demand in the first 6 months of 1988 averaged 0.9 million barrels per day, virtually the same level as for the first 6 months of 1987.

Asphalt and road oil demand rose almost 0.2 million barrels per day in June, a response to the seasonal increase in road construction activity. To meet the greater level of demand, production and stock withdrawal each increased by 0.1 million barrels per day. Asphalt and road oil demand averaged over 0.7 million barrels per day in June. For the first half of 1988, asphalt and road oil consumption averaged under 0.4 million barrels per day, virtually unchanged from the average for the first half of 1987.

Crude Oil Production

Reductions in the world price of crude oil that started in 1986 have depressed domestic crude oil production, and this downward trend persisted in the first 6 months of 1988. Crude oil production averaged just over 8.4 million barrels per day for the first half of 1987, and under 8.3 million barrels per day for the first half of 1988. Production in the lower 48 States was over 0.2 million barrels per day, or 3.3 percent, lower in the first half of 1988. Alaskan production, by contrast, was almost 0.1 million barrels per day, or 3.7 percent, higher in the first half of this year. This was largely the result of the recent addition to production from the Endicott offshore field.

Crude Oil Imports

The trend toward higher levels of crude oil imports that began after the collapse in world crude oil prices in early 1986 continued through the first half of 1988. From an average of 4.1 million barrels per day in the first half of 1987, gross crude oil imports (excluding SPR) increased 0.7 million barrels per day to almost 4.9 million barrels per day in the first half of

1988, a 17.4 percent increase. Saudi Arabia¹ and Iraq accounted for two-thirds of the total increase in crude oil imports.

In the first 6 months of 1988, crude oil imports from Saudi Arabia averaged about 0.9 million barrels per day; this was 0.3 million barrels per day, or 63.1 percent, higher than for the comparable period in 1987. Iraq's exports to the United States increased from under 0.1 million barrels per day in the first half of 1987 to over 0.2 million barrels per day in the first half of 1988, a 248.5 percent increase. Crude oil imports from Nigeria, Canada, and Mexico increased as well. Comparing levels for the first half of 1987 and 1988, crude oil imports from all three countries climbed about 0.1 million barrels per day in 1988, an increase of 27.6 percent from Nigeria, 14.5 percent from Canada, and 15.8 percent from Mexico.

The Persian Gulf region as a source of U.S. supply has grown in importance. In the first half of 1987 Saudi Arabia was the third largest exporter of crude oil to the United States (behind Canada and Mexico) and supplied 12.7 percent of total U.S. crude oil imports. During the first half of 1988, crude oil imports from Saudi Arabia surpassed those of both Mexico and Canada, and Saudi Arabia became the number one exporter of crude oil to the United States, accounting for 17.7 percent of total U.S. crude oil imports. Iraq, the thirteenth largest exporter of crude oil to the United States in the first half of 1987, moved to seventh place in the first half of 1988, supplying 4.7 percent of the nation's imported crude oil.

Refinery Utilization

The refinery utilization rate of crude oil distillation units for the first 6 months of 1988 averaged 83.9 percent, well above the 81.6 percent average rate during the same period last year. Greater consumption and increased refinery profit margins contributed to the increase in the utilization rate. Both operable capacity and gross inputs to distillation units showed levels for the first 6 months of 1988 above those for the first 6 months in 1987. Operable capacity averaged 15.9 million barrels per day in the first half of 1988, up 0.3 million barrels per day from the average for the first half of 1987. Gross inputs to crude distillation units grew even more and averaged 13.3 million barrels per day, 0.6 million barrels per day higher than in 1987. Downstream activity this year also increased. Total fresh feed inputs to catalytic cracking, catalytic hydrocracking, and coking units averaged almost 6.7 million barrels per day in the first half of 1988, compared with a rate of over 6.4 million barrels per day for the comparable period in 1987. Much of the growth observed in downstream activity is due to increased demand for light-end products, especially motor gasoline.

¹ For this article, Saudi Arabia includes the Neutral Zone.

Petrochemical Industry Boosts Demand for Liquefied Petroleum Gases

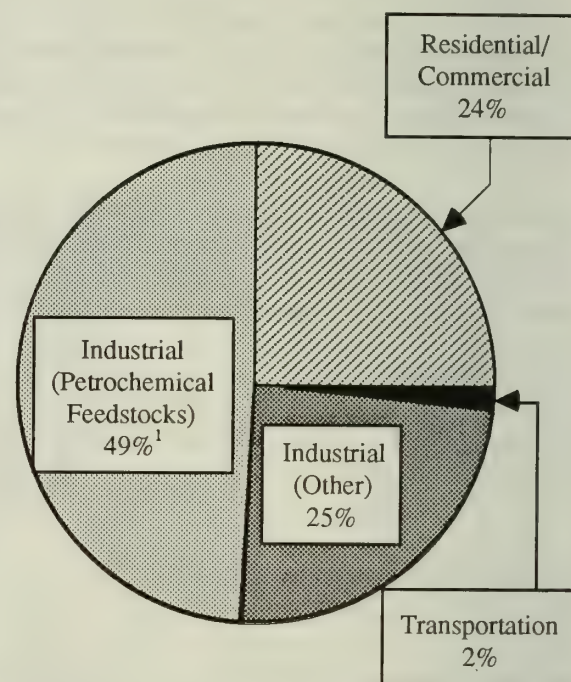
The U.S. petrochemical industry is currently experiencing a period of rapid growth, compared with the early 1980's when the petrochemical industry was faced with plummeting demand and excess capacity. Some of the factors influencing the turnaround in the petrochemical industry are: significantly lower energy prices of the past 2 years which reduced raw material and production costs; rising demand for petrochemicals spurred by an expanding economy; and continued substitution of plastics and synthetics for other materials. Moreover, the 1988 surge in export-led industrial production has carried over into the petrochemical industry. Propelled by the dollar's decline over the past 3 years, exports of finished and unfinished petrochemical products are rising.¹

Domestic demand for liquefied petroleum gases (LPG's), led by strong demand for petrochemical feedstocks, has steadily risen since 1986. The collapse in oil and gas prices in 1986 significantly lowered petrochemical feedstock costs and contributed significantly to the boom in the U.S. petrochemical industry. Between 1986 and 1987, total LPG demand grew by 100,000 barrels per day, or about 7 percent. During the first 6 months of 1988, demand for LPG's was an average of 52,000 barrels per day (3.3 percent) higher than during the same period in 1987.

Liquefied petroleum gases accounted for about 10 percent of all petroleum products consumed in the United States in 1987. The industrial sector accounted for nearly three-fourths of LPG demand, with the petrochemical industry being the largest component² (Figure H1). The residential/commercial sector accounted for 24 percent of demand for LPG's, and the transportation sector for 2 percent.

The primary constituents of LPG's are ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane. Liquefied petroleum gases are obtained from two sources; natural gas and refinery gas streams. Natural gas (the source for about three-fourths of all LPG's produced) is processed at gas processing plants, cycling plants, and petrochemical plants to extract hydrocarbons heavier than ethane. The extracted hydrocarbons are then separated by fractionation into their component products. Liquefied petroleum gases are also extracted at refineries from refinery gas streams, although refinery LPG's are considered more as a by-product of refinery operations rather than as a primary product of the refining process.

Figure H1. Liquefied Petroleum Gas Consumption by End-Use Sector, 1987



¹ This value is based on the American Petroleum Institute report, *Sales of Natural Gas Liquids and Liquefied Refinery Gases*, October 1987.

Source: Energy Information Administration, *Annual Energy Review*, DOE/EIA-0384(87), p. 131.

Ethane

Ethane, the second largest LPG by volume (product supplied) is primarily used as a feedstock for ethylene production. Ethylene is one of the basic building blocks of the petrochemical industry and is used to manufacture such products as plastics, solvents, and antifreeze. When the price of ethane makes it uneconomical to extract, then the ethane is simply left in the natural gas stream. Ethane demand for the first 6 months of 1988 averaged 504,000 barrels per day, or about 5 percent

¹ *The Oil Daily*, "Analysis of Petrochemical Outlook Indicates More Expansion Looming," May 30-31, 1988, p. 12.

² American Petroleum Institute, *Sales of Natural Gas Liquids and Liquefied Refinery Gases*, October 1987, p.1.

above the demand for the comparable period in 1987 (Table H2). Even so, the high cost of extraction resulted in ethane losing market share as a petrochemical feedstock in 1988; ethane may continue to lose market share as some chemical companies turn more to propane and the heavier feedstocks, such as naphthas and gas oils, for ethylene production.³

Propane

Propane is the largest LPG by volume (product supplied) and one of the most important because of its diverse applications. The greatest demand for propane is in the residential/commercial sector for use in space heating, cooking, and hot-water heating. To a lesser degree, propane is also used in the transportation sector as a fuel for fleet vehicles (automobiles and light trucks). An important and growing segment of

³ *Oil and Gas Journal*, July 11, 1988, p. 41.

**Table H2. Liquefied Petroleum Gases — —
Product Supplied**
(Thousand Barrels per Day)

Commodity	January - June		Percent Change
	1987	1988	
Ethane	481	504	4.8
Propane	905	900	-0.6
Normal Butane ...	143	172	20.3
Isobutane	51	55	7.8
Total	1,580	1,632	3.3

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, *Petroleum Supply Annual* 1987, DOE/EIA-0340 (87)12, Volume 2, Table 2; and *Petroleum Supply Monthly*, June 1988, DOE/EIA-0109 (88/06), Table 5.



Natural gas processing plants, such as the one pictured above, account for nearly three-fourths of all liquefied petroleum gases produced in the United States.

propane demand is in the production of ethylene and propylene feedstocks by the petrochemical industry. Propylene, another basic building block of the petrochemical industry, is used to manufacture a variety of products, such as plastics, pharmaceutical drugs, dry cleaning fluids, and detergents.

Propane demand in the first 6 months of 1988 averaged 900,000 barrels per day, virtually the same level as the first 6 months of 1987. However, propane demand behaved quite differently in the first and second quarters of both years. Cold temperatures in January 1988, along with increased demand for propane at petrochemical plants during the first quarter of 1988 contributed to a 6.8 percent increase over first quarter 1987 levels. The reverse was true in the second quarter as 1988 levels were 11.2 percent lower than the 1987 levels, in part due to petrochemical plants shifting to heavier feedstocks.

Normal Butane

Normal butane is mainly used as a blendstock for gasoline production. Butane is also used as a petrochemical feedstock and a fuel, but the quantities involved are usually small, primarily due to the price advantage of alternative fuels. As a blendstock, normal butane increases gasoline volatility without reducing the octane rating. In 1987 the Environmental Protection Agency (EPA) proposed rules aimed at reducing gasoline volatility during the summer months by a phased lowering of the average Reid vapor pressure specifications from 10.6 to 8.2 psi by 1992. The proposed EPA rules would

cause refiners to increase throughputs of crude oil to compensate for reduced butane blending while maintaining gasoline octane and volatility levels. Despite an uncertain future for normal butane as a gasoline blendstock, demand for butane during the first 6 months of 1988 was 20.3 percent higher than during the same period in 1987.

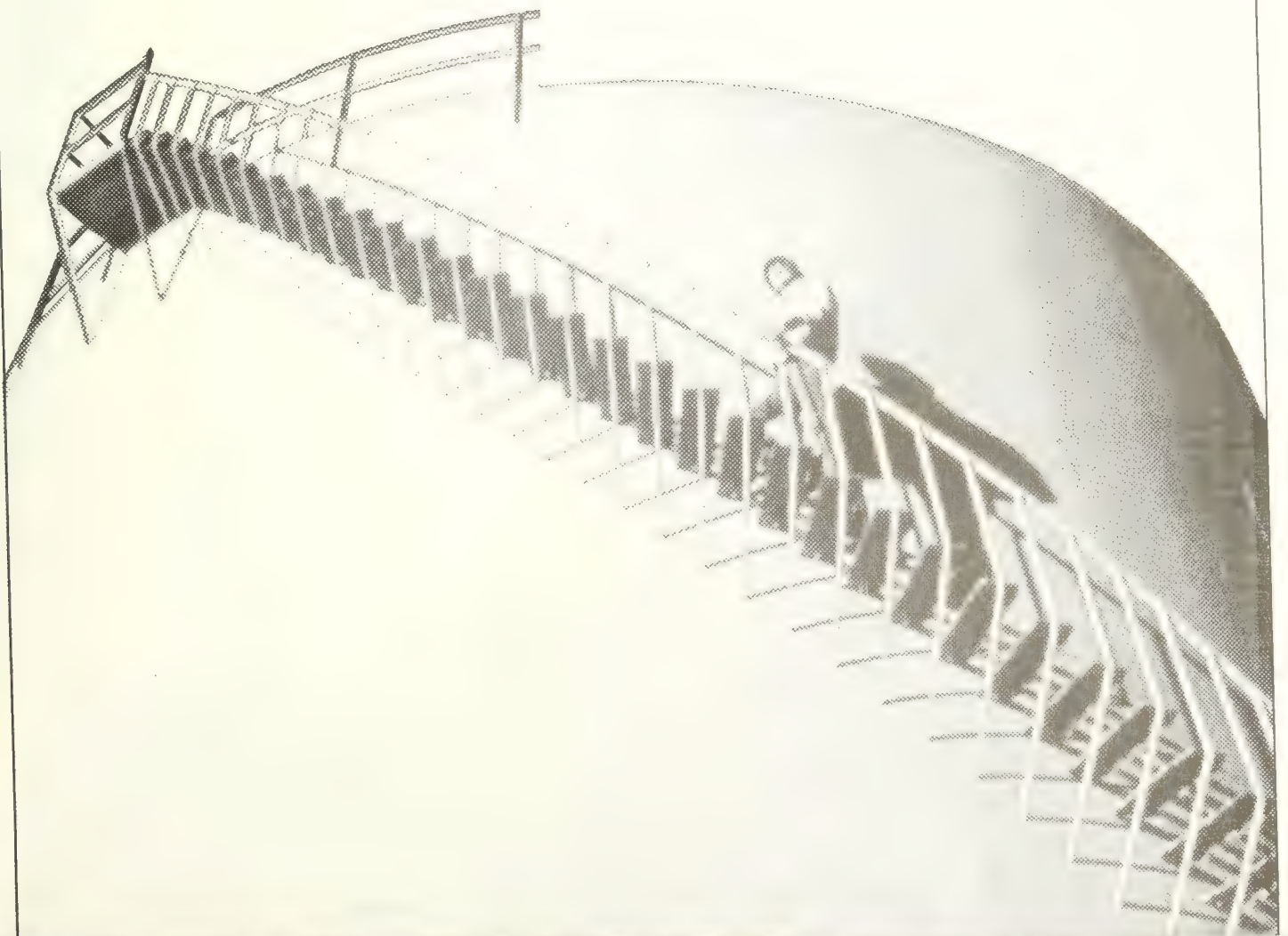
Isobutane

The predominant end-use for isobutane is in gasoline blending operations. When used directly as a blending agent, isobutane increases the octane level and helps control the vapor pressure of gasoline. Another important and fast growing market for isobutane is in the manufacture of methyl tertiary butyl ether, or MTBE. MTBE is used as an octane enhancer for gasoline. Demand for isobutane was 7.8 percent higher during the first 6 months of 1988 than during the same period in 1987.

Outlook

The strong demand for petrochemical feedstocks by the chemical industry so far this year is expected to continue through the end of 1988. With ethylene production close to short-term capacity, LPG use as a chemical feedstock continues to grow. According to the Energy Information Administration's latest (July 1988) *Short-Term Energy Outlook*, LPG demand is forecast to reach 1.7 million barrels per day by the end of 1988, which is 5.6 percent higher than the level at the end of 1987.

Petroleum Focus



LIBRARY OF THE UNIVERSITY OF TORONTO

Petroleum Supply Summary (Million Barrels per Day)

	July			Cumulative January Through July		
	1988	1987	% Change	1988	1987	% Change
Products Supplied						
Motor Gasoline	7.2	7.6	-4.8	7.2	7.2	0.9
Distillate Fuel Oil	2.7	2.7	.7	3.1	3.0	3.9
Residual Fuel Oil	1.1	1.3	-14.2	1.3	1.3	.8
Other Products	5.5	5.4	.1	5.3	5.1	2.6
Total	16.6	17.1	-3.3	16.9	16.6	1.9
Crude Inputs to Refineries	13.6	13.4	1.4	13.2	12.7	4.3
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	9.9	9.9	-.3	9.9	10.0	-1.2
Imports						
Crude Oil ²	5.1	5.2	-2.0	4.9	4.3	14.0
SPR	.1	.1	-25.1	1	1	-30.5
Products	1.8	2.3	-21.0	2.0	2.0	1.4
Total	7.0	7.6	-8.0	7.0	6.4	9.5
Exports						
Crude Oil	.1	.1	-12.6	.2	.2	2.6
Products	.6	.5	17.6	.7	.6	11.9
Total	.8	.7	11.0	.8	.8	10.0
Stock Withdrawal						
Crude Oil ²	.4	.1	-	(s)	(s)	-
Products	-.6	-.4	-	(s)	.2	-
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	551	530	4.0	-	-	-
Other	352	324	8.9	-	-	-
Total	904	854	5.9	-	-	-
Products						
Motor Gasoline ³	215	226	-5.2	-	-	-
Distillate Fuel Oil	119	115	3.9	-	-	-
Residual Fuel Oil	42	45	-7.0	-	-	-
Other	342	319	7.3	-	-	-
Total	717	705	1.8	-	-	-
Total Crude Oil and Products	1,621	1,558	4.0	-	-	-

¹ Includes alcohol and other hydrocarbon liquids.

² Excludes Strategic Petroleum Reserve (SPR).

³ Including blending components.

(s) = Less than 0.05 million barrels per day/or less than 0.05 percent.

Note: Percent changes are based on unrounded values. July 1988 data are estimates based on weekly data. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, June 1988.

LIBRARY OF THE UNIVERSITY OF TORONTO

Summary Statistics



Table S1. Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Liquids	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	^B 1,074
1975	Average	10,045	8,375	1,633	^B -17	^B -15	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	^B 1,392
1981	Average	10,230	8,572	1,609	^B -290	^B 130	16,058	1,484
1982	Average	10,252	8,649	1,550	-136	283	15,296	^B 1,430
1983	Average	10,299	8,688	1,559	^B -214	^B 234	15,231	1,454
1984	Average	10,554	8,879	1,630	-199	-81	15,726	1,556
1985	Average	10,636	8,971	1,609	-50	153	15,726	1,519
1986	January	10,911	9,137	1,711	-383	-151	16,088	1,535
	February	10,916	9,173	1,696	-37	804	16,186	1,514
	March	10,664	9,013	1,604	-345	1,160	16,276	1,489
	April	10,435	8,864	1,523	41	262	15,945	1,479
	May	10,440	8,838	1,543	260	-1,109	15,993	1,506
	June	10,187	8,623	1,504	3	-1,238	16,049	1,543
	July	10,225	8,660	1,507	-541	-422	16,307	1,573
	August	9,875	8,374	1,445	242	-551	16,618	1,582
	September	9,852	8,328	1,468	-217	-973	15,909	1,618
	October	9,954	8,419	1,477	-233	476	16,602	1,610
	November	10,061	8,412	1,569	95	-147	16,221	1,612
	December	9,985	8,352	1,571	186	443	17,131	1,593
	Average	10,289	8,680	1,551	-78	-124	16,281	--
1987	January	10,139	8,480	1,582	-166	376	16,684	1,586
	February	10,073	8,389	1,618	-22	831	16,908	1,563
	March	10,131	8,464	1,598	-125	340	16,165	1,557
	April	10,139	8,498	1,590	50	532	16,524	1,539
	May	9,977	8,336	1,585	36	-116	16,026	1,542
	June	9,906	8,279	1,578	-165	-42	16,830	1,548
	July	9,895	8,251	1,582	33	-372	17,113	1,558
	August	9,843	8,210	1,571	-345	-737	16,346	1,592
	September	9,851	8,205	1,582	-220	-236	16,670	1,606
	October	10,037	8,364	1,602	-661	523	16,941	1,610
	November	10,112	8,397	1,637	-355	-478	16,343	1,635
	December	10,001	8,318	1,621	405	482	17,445	1,607
	Average	10,008	8,349	1,595	-128	87	16,665	--
1988	January	^E 9,874	^E 8,245	1,569	56	285	17,224	1,597
	February	^E 10,016	^E 8,376	1,594	-130	895	17,584	1,575
	March	^E 10,044	^E 8,347	1,628	-212	748	17,530	1,559
	April	^E 9,935	^E 8,268	1,609	-194	-450	16,440	1,578
	May	^E 9,881	^E 8,203	1,624	-41	-1,049	16,117	1,612
	June*	^{RE} 9,815	^{RE} 8,158	^R 1,605	^R -113	^R 146	^R 17,054	^R 1,611
	July**	^{PE} 9,862	^{PE} 8,189	^E 1,617	^E 296	^E -633	^E 16,550	^E 1,621
	7-Mo. Average	^{PE} 9,918	^{PE} 8,254	^E 1,607	^E -47	^E -15	^E 16,924	--
1987	7-Mo. Average	10,037	8,385	1,590	-52	212	16,602	--
1986	7-Mo. Average	10,537	8,899	1,583	-146	-108	16,121	--

¹ Includes lease condensate.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.

⁵ Includes stocks located in the Strategic Petroleum Reserve.

⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.

⁷ Net Imports equal Imports minus Exports.

⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil¹ and Petroleum Products Overview (Continued)

		Imports			Exports			Net ⁷ Imports
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	Average	5,113	3,488	1,625	815	236	579	4,298
1983	Average	5,051	3,329	1,722	739	164	575	4,312
1984	Average	5,437	3,426	2,011	722	181	541	4,715
1985	Average	5,067	3,201	1,866	781	204	577	4,286
1986	January	5,573	3,472	2,101	859	159	700	4,714
	February	4,676	2,968	1,709	876	162	715	3,800
	March	4,712	2,988	1,724	732	212	520	3,980
	April	5,439	3,684	1,755	850	94	756	4,589
	May	6,400	4,250	2,150	724	98	625	5,676
	June	6,848	4,635	2,213	642	240	401	6,206
	July	6,942	4,726	2,216	685	65	620	6,256
	August	7,168	4,859	2,309	868	233	635	6,300
	September	7,090	5,031	2,059	714	161	553	6,375
	October	6,427	4,419	2,008	831	151	680	5,597
	November	6,592	4,615	1,977	821	115	706	5,771
	December	6,700	4,412	2,288	820	159	661	5,881
	Average	6,224	4,178	2,045	785	154	631	5,439
1987	January	6,353	4,385	1,968	703	84	619	5,650
	February	5,984	3,866	2,118	977	284	694	5,007
	March	5,794	3,779	2,015	720	150	570	5,074
	April	5,911	4,132	1,779	870	247	624	5,041
	May	6,073	4,340	1,732	666	69	597	5,407
	June	6,769	4,807	1,962	669	116	554	6,099
	July	7,588	5,295	2,293	680	149	531	6,908
	August	7,454	5,510	1,944	664	141	523	6,790
	September	7,178	5,110	2,068	795	116	680	6,382
	October	7,068	5,142	1,926	646	84	562	6,422
	November	7,068	5,013	2,055	737	164	573	6,331
	December	6,833	4,640	2,194	1,057	220	838	5,776
	Average	6,678	4,674	2,004	764	151	613	5,914
1988	January	6,900	4,619	2,281	891	212	679	6,009
	February	6,995	4,692	2,303	867	149	718	6,128
	March	6,727	4,788	1,938	839	218	622	5,888
	April	7,050	5,126	1,924	678	117	562	6,371
	May	7,218	5,234	1,983	817	141	676	6,401
	June*	^R 6,885	^R 5,055	^R 1,830	^R 941	^R 141	^R 800	^R 5,944
	July**	^E 6,982	^E 5,170	^E 1,812	^E 755	^E 130	^E 625	^E 6,227
	7-Mo. Average	^E 6,965	^E 4,956	^E 2,009	^E 827	^E 159	^E 668	^E 6,138
1987	7-Mo. Average	6,358	4,378	1,980	752	155	597	5,607
1986	7-Mo. Average	5,811	3,826	1,985	765	147	619	5,046

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 9.1.

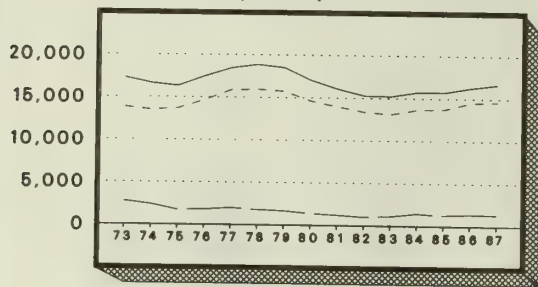
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

(Thousand Barrels per Day)



Annual

Legend
Petroleum Products Supplied
Refinery Production
Net Petroleum Products Imports

20,000

15,000

10,000

5,000

0

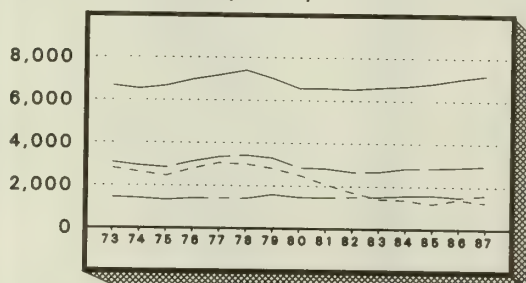
1987

1988

Monthly

Figure S2. Petroleum Products Supplied

(Thousand Barrels per Day)



Annual

Legend
Motor Gasoline
Distillate Fuel Oil
Residual Fuel Oil
Liquefied Petroleum Gases

8,000

6,000

4,000

2,000

0

1987

1988

Monthly

Figure S3. Crude Oil Supply and Disposition

(Thousand Barrels per Day)

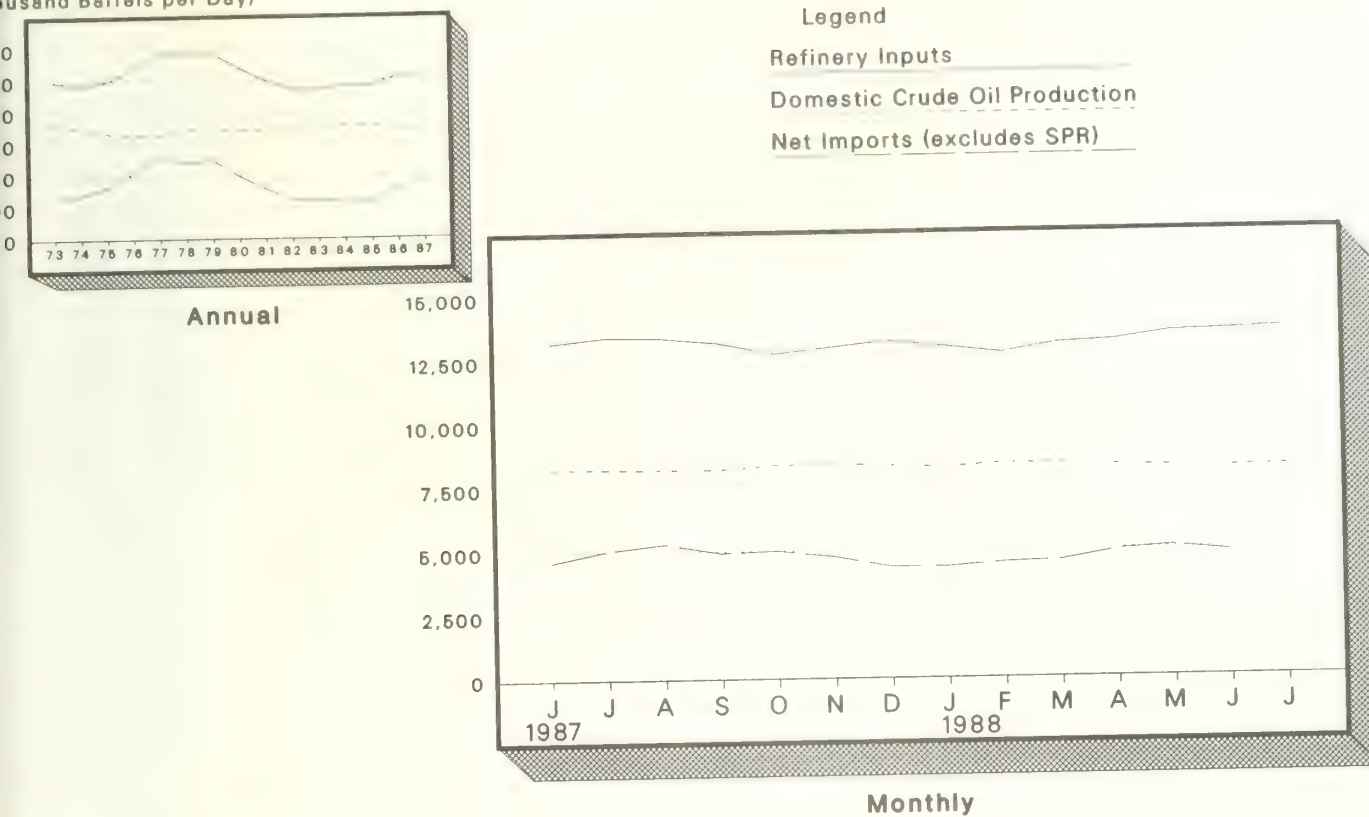


Figure S4. Crude Oil Ending Stocks

(Million Barrels)

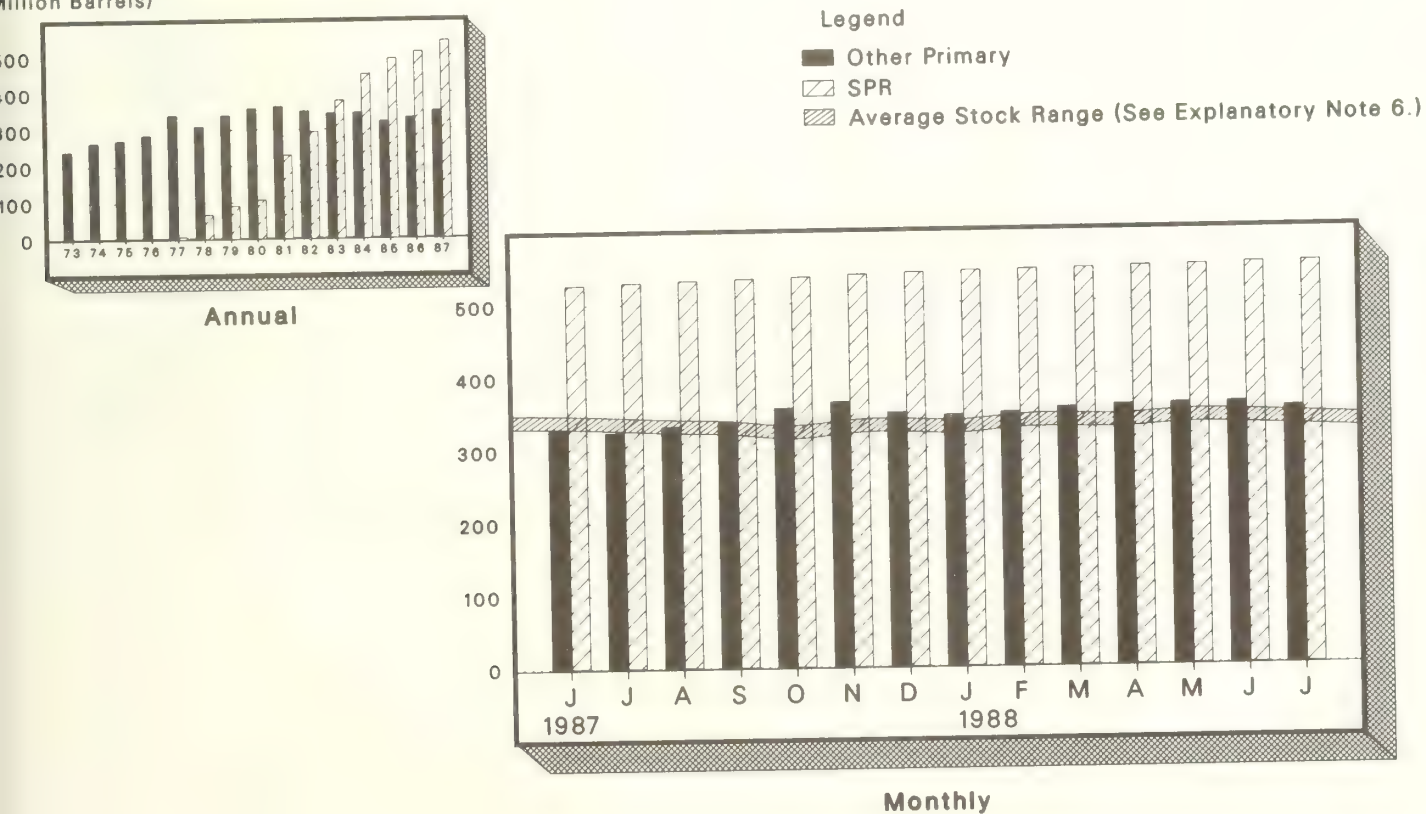


Table S2. Crude Oil¹ Supply and Disposition

		Supply							Unaccounted for Crude Oil ⁵
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
Thousand Barrels per Day									
1973	Average	9,208	198	3,244	—	3,244	—	11	3
1974	Average	8,774	193	3,477	—	3,477	—	-62	-25
1975	Average	8,375	191	4,105	—	4,105	—	-17	17
1976	Average	8,132	173	5,287	—	5,287	—	-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	7 46	83
1982	Average	8,649	1,695	3,488	165	3,323	-174	38	71
1983	Average	8,688	1,714	3,329	234	3,096	-234	7 20	114
1984	Average	8,879	1,722	3,426	197	3,229	-195	-4	185
1985	Average	8,971	1,825	3,201	118	3,083	-117	67	145
1986	January	9,137	1,870	3,472	51	3,420	-35	-348	364
	February	9,173	1,907	2,968	24	2,944	-35	-2	32
	March	9,013	1,860	2,988	59	2,929	-49	-296	259
	April	8,864	1,836	3,684	63	3,621	-63	104	70
	May	8,838	1,927	4,250	36	4,215	-35	295	79
	June	8,623	1,887	4,635	64	4,571	-64	68	292
	July	8,660	1,903	4,726	52	4,674	-52	-489	189
	August	8,374	1,811	4,859	51	4,809	-51	293	93
	September	8,328	1,782	5,031	47	4,984	-47	-170	161
	October	8,419	1,927	4,419	37	4,382	-36	-197	223
	November	8,412	1,883	4,615	45	4,570	-65	160	-136
	December	8,352	1,807	4,412	48	4,365	-68	254	28
		Average	8,680	1,867	4,178	48	4,130	-50	-28
1987	January	8,480	2,019	4,385	92	4,293	-108	-58	-5
	February	8,389	1,853	3,866	44	3,822	-64	42	382
	March	8,464	1,968	3,779	95	3,684	-106	-19	151
	April	8,498	1,990	4,132	57	4,076	-67	116	120
	May	8,336	1,979	4,340	92	4,248	-101	137	51
	June	8,279	1,930	4,807	64	4,743	-69	-97	434
	July	8,251	1,910	5,295	76	5,218	-91	124	32
	August	8,210	1,908	5,510	63	5,447	-63	-281	177
	September	8,205	1,874	5,110	64	5,047	-64	-157	217
	October	8,364	1,986	5,142	57	5,085	-57	-604	-3
	November	8,397	2,068	5,013	97	4,916	-97	-258	115
	December	8,318	2,043	4,640	88	4,572	-68	472	101
		Average	8,349	1,962	4,674	73	4,601	-80	-49
1988	January	E 8,245	E 1,999	4,619	67	4,552	-67	123	303
	February	E 8,376	E 2,070	4,692	49	4,643	-49	-81	-21
	March	E 8,347	E 2,086	4,788	23	4,766	-26	-187	419
	April	E 8,268	E 2,029	5,126	78	5,049	-77	-117	126
	May	E 8,203	E 2,016	5,234	22	5,213	-22	-19	251
	June*	RE 8,158	RE 1,984	E 5,055	R 70	R 4,985	R -70	R -43	R 601
	July**	PE 8,189	PE 2,028	E 5,170	E 57	E 5,112	E -57	E 354	E 131
	7-Mo. Average	PE 8,254	PE 2,030	E 4,956	E 52	E 4,904	E -53	E 6	E 260
1987	7-Mo. Average	8,385	1,951	4,378	75	4,303	-87	35	162
1986	7-Mo. Average	8,899	1,884	3,826	50	3,776	-48	-99	186

Table S2. Crude Oil¹ Supply and Disposition (Continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ⁶	Crude Losses	Refinery Inputs	Exports	Product Supplied ⁶	Total	SPR ⁴	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	Average	-19	13	12,431	2	—	242	—	242
1974	Average	-15	13	12,133	3	—	265	—	265
1975	Average	-17	13	12,442	6	—	271	—	271
1976	Average	-18	15	13,416	8	—	285	—	285
1977	Average	-14	16	14,602	50	—	348	7	340
1978	Average	-14	16	14,739	158	—	376	67	309
1979	Average	-13	16	14,648	235	—	430	91	339
1980	Average	-13	15	13,481	287	—	7 466	108	7 358
1981	Average	-58	5	12,470	228	—	594	230	363
1982	Average	-59	3	11,774	236	—	7 644	294	7 350
1983	Average	—	2	11,685	164	66	723	379	344
1984	Average	—	2	12,044	181	64	796	451	345
1985	Average	—	1	12,002	204	60	814	493	321
1986	January	—	1	12,374	159	57	826	494	332
	February	—	(s)	11,918	162	56	827	495	332
	March	—	(s)	11,652	212	52	838	497	341
	April	—	(s)	12,512	94	51	837	499	338
	May	—	(s)	13,279	98	49	829	500	329
	June	—	(s)	13,261	240	52	828	502	327
	July	—	(s)	12,917	65	51	845	503	342
	August	—	(s)	13,287	233	48	838	505	333
	September	—	(s)	13,097	161	45	844	506	338
	October	—	(s)	12,636	151	41	851	508	344
	November	—	(s)	12,831	115	41	849	509	339
	December	—	(s)	12,777	159	42	843	512	331
	Average	—	(s)	12,716	154	49	—	—	—
1987	January	—	1	12,570	84	41	848	515	333
	February	—	(s)	12,290	284	41	849	517	332
	March	—	1	12,081	150	39	852	520	332
	April	—	(s)	12,512	247	41	851	522	329
	May	—	(s)	12,653	69	42	850	525	325
	June	—	(s)	13,202	116	36	855	527	328
	July	—	(s)	13,430	149	32	854	530	324
	August	—	(s)	13,380	141	31	864	532	332
	September	—	(s)	13,168	116	28	871	534	337
	October	—	(s)	12,733	84	25	892	536	356
	November	—	(s)	12,981	164	25	902	539	364
	December	—	(s)	13,212	220	31	890	541	349
	Average	—	(s)	12,854	151	34	—	—	—
1988	January	—	(s)	12,975	212	36	888	543	345
	February	—	(s)	12,715	149	52	892	544	348
	March	—	(s)	13,072	218	52	899	545	354
	April	—	(s)	13,167	117	42	904	547	357
	May	—	(s)	13,472	141	34	906	548	358
	June*	—	(s)	R 13,528	R 141	R 32	R 909	550	R 359
	July**	—	E (s)	E 13,618	E 130	E 38	E 904	E 551	E 352
	7-Mo. Average	—	E (s)	E 13,225	E 159	E 41	—	—	—
1987	7-Mo. Average	—	(s)	12,680	155	39	—	—	—
1986	7-Mo. Average	—	(s)	12,565	147	53	—	—	—

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹										
		Algeria	Libya	Saudi Arabia ²	United Arab Emirates	Indo-nesia	Iran	Nigeria	Vene-zuela	Other OPEC ²	Total OPEC ³	Total Arab OPEC ⁴
Thousand Barrels per Day												
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	Average	187	4	168	45	314	27	293	605	187	1,830	472
1986	January	215	0	664	11	290	0	278	629	210	2,298	976
	February	157	0	574	0	290	(s)	204	518	64	1,807	757
	March	260	0	482	0	161	0	328	797	117	2,145	798
	April	275	0	698	21	292	0	319	831	139	2,576	1,058
	May	193	0	574	40	314	40	398	899	290	2,749	966
	June	319	0	662	83	353	0	382	772	439	3,010	1,377
	July	310	0	738	59	532	66	542	730	330	3,307	1,357
	August	363	0	680	37	274	93	606	916	378	3,346	1,339
	September	245	0	810	62	341	31	684	856	356	3,383	1,388
	October	305	0	697	147	388	0	530	863	346	3,276	1,387
	November	311	0	868	34	335	0	483	843	214	3,088	1,295
	December	291	0	769	30	251	0	511	841	284	2,976	1,223
	Average	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	January	156	0	875	15	254	0	346	899	218	2,764	1,184
	February	307	0	776	54	418	30	256	791	155	2,785	1,222
	March	334	0	430	0	317	73	312	702	135	2,305	843
	April	323	0	463	62	236	47	512	710	77	2,430	866
	May	196	0	499	26	297	75	550	913	119	2,675	775
	June	247	0	782	45	261	165	546	808	268	3,122	1,275
	July	347	0	756	42	349	237	792	854	157	3,533	1,264
	August	250	0	961	103	312	208	732	831	351	3,748	1,611
	September	378	0	902	146	242	193	615	821	263	3,560	1,640
	October	274	0	1,051	111	305	86	518	829	401	3,576	1,713
	November	395	0	637	97	219	41	607	771	402	3,169	1,477
	December	339	0	876	31	216	23	613	717	220	3,033	1,415
	Average	295	0	751	61	285	98	535	804	231	3,060	1,274
1988	January	312	0	849	61	179	⁵ 1	406	752	540	3,100	1,632
	February	358	0	1,265	79	148	0	501	830	214	3,394	1,883
	March	259	0	934	6	123	0	541	790	352	3,006	1,506
	April	342	0	931	48	166	0	651	812	385	3,335	1,613
	May	320	0	1,034	34	298	0	488	835	354	3,363	1,710
	June	262	0	923	11	158	0	703	839	495	3,391	1,603
	6-Mo. Average	308	0	987	39	179	(s)	547	809	391	3,262	1,656
1987	6-Mo. Average	259	0	636	33	296	65	422	805	162	2,677	1,024
1986	6-Mo. Average	237	0	609	26	283	7	320	744	211	2,437	990

¹ Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

² The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

³ "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

⁴ The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

Table S3. Crude Oil and Petroleum Product Imports (Continued)												
		Imports from Non-OPEC Sources ⁶									Total Imports	
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC		Total Non-OPEC
Thousand Barrels per Day												
		174	1,325	16	585	255	15	99	329	465	3,263	6,256
1973	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1974	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1975	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1976	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1977	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1978	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1979	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1980	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1981	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1982	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1983	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1984	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1985	Average											
1986	January	62	823	681	58	108	333	21	326	862	3,275	5,573
	February	33	690	557	11	85	218	18	309	949	2,870	4,676
	March	18	750	616	27	79	178	25	186	688	2,567	4,712
	April	34	798	694	13	111	188	23	209	793	2,863	5,439
	May	32	881	743	37	130	365	27	237	1,199	3,651	6,400
	June	29	753	884	17	167	569	30	233	1,157	3,838	6,848
	July	44	763	850	25	131	353	29	237	1,202	3,634	6,942
	August	39	801	738	12	133	584	7	214	1,294	3,822	7,168
	September	15	801	615	17	162	437	23	291	1,345	3,706	7,090
	October	38	842	680	26	112	173	21	215	1,043	3,151	6,427
	November	39	960	565	53	129	448	21	179	1,111	3,504	6,592
	December	57	809	746	7	148	351	12	291	1,304	3,724	6,700
	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	49	953	767	40	104	312	29	341	1,205	3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	March	45	989	745	30	89	461	22	180	1,160	3,720	6,727
	April	12	975	674	31	82	581	29	193	1,137	3,714	7,050
	May	17	990	718	38	102	383	20	243	1,345	3,855	7,218
	June	25	1,022	765	19	112	232	13	212	1,094	3,494	6,885
	6-Mo. Average	34	987	729	30	97	381	22	229	1,192	3,700	6,962
1987	6-Mo. Average	42	823	664	21	117	371	23	270	1,139	3,471	6,148
1986	6-Mo. Average	35	784	697	28	114	309	24	249	941	3,180	5,618

Footnotes continued.

⁶ Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)

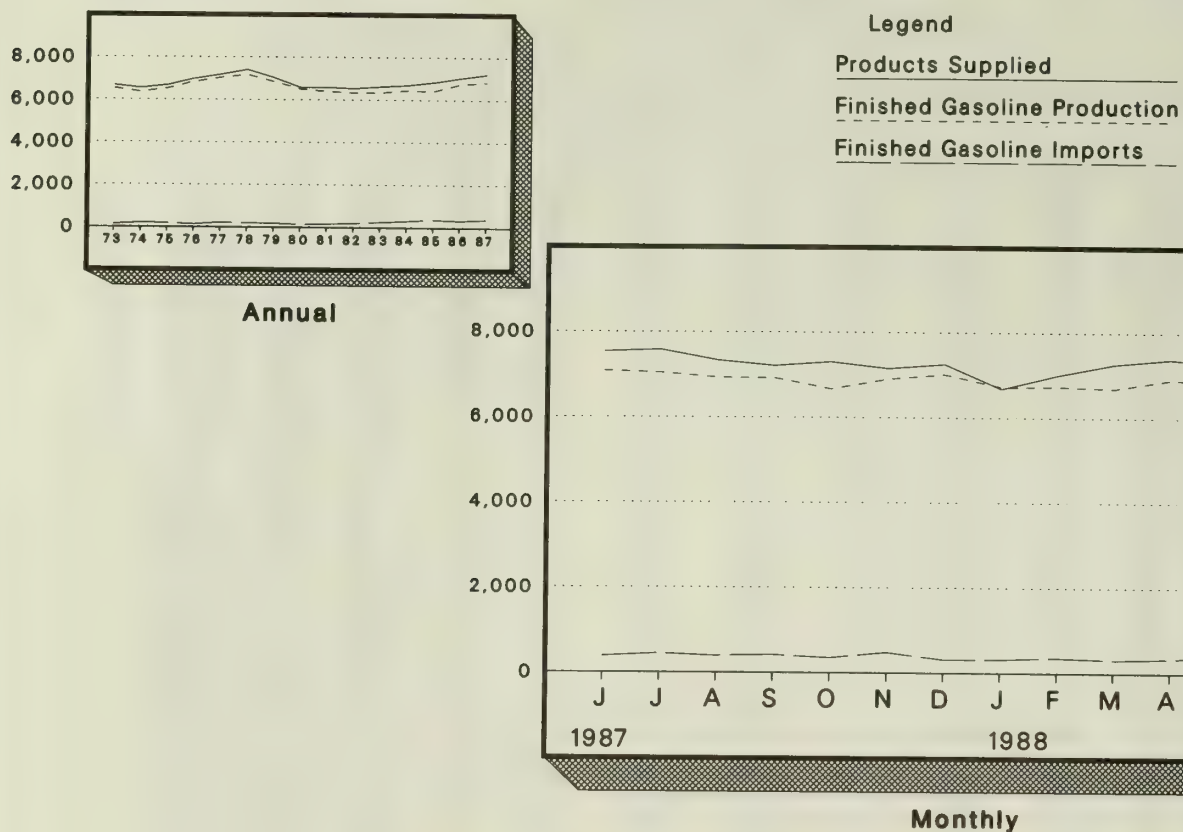
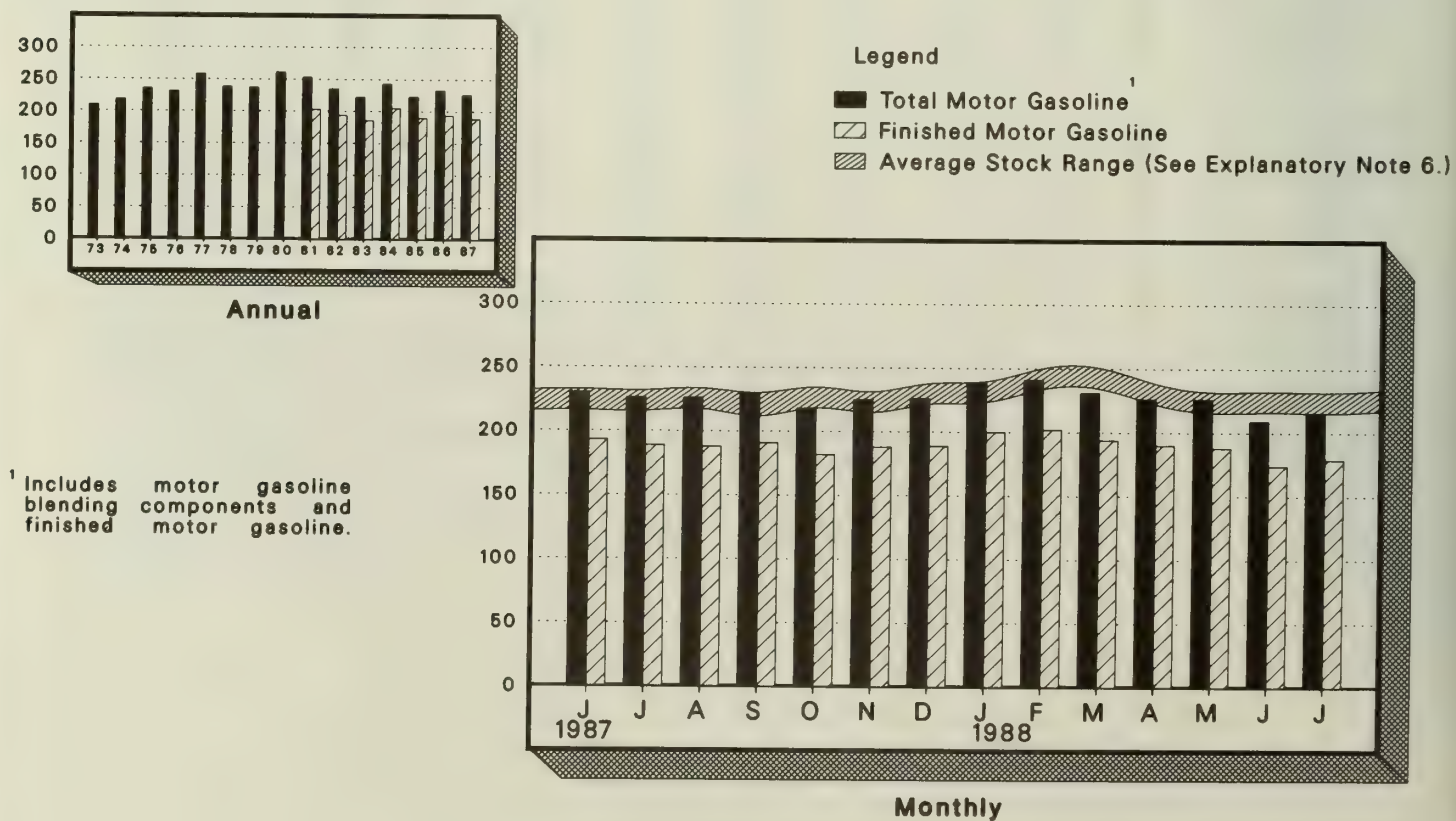


Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)



¹ Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawal ^{2,3}	Exports	Product Supplied		Total Motor Gasoline ⁵	Finished Motor Gasoline	
						Total ⁴	Unleaded			Unleaded
Thousand Barrels per Day							Percent of Total	Million Barrels		
1973	Average	6,535	134	9	4	6,674	--	--	209	--
1974	Average	6,360	204	-24	2	6,537	--	--	⁶ 218	--
1975	Average	6,520	184	⁶ -28	2	6,675	--	--	235	--
1976	Average	6,841	131	10	3	6,978	--	--	231	--
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	--
1979	Average	6,852	181	2	(s)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	--
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	25	20	6,539	3,409	52.1	⁶ 235	--
1983	Average	6,340	247	⁶ 45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	-54	6	6,693	3,987	59.6	243	205
1985	Average	6,419	381	41	10	6,831	4,406	64.5	223	190
1986	January	6,522	332	-347	6	6,502	4,404	67.7	238	201
	February	6,302	334	-156	11	6,469	4,365	67.5	244	205
	March	6,061	224	691	21	6,955	4,678	67.3	219	184
	April	6,498	291	338	23	7,105	4,783	67.3	207	174
	May	7,095	471	-450	9	7,106	4,729	66.5	221	188
	June	7,101	392	-265	18	7,209	4,914	68.2	230	196
	July	6,956	337	189	47	7,436	5,182	69.7	224	190
	August	7,092	303	83	43	7,435	5,138	69.1	222	187
	September	6,891	303	-289	40	6,864	4,813	70.1	234	196
	October	6,616	322	372	61	7,250	5,086	70.1	222	184
	November	6,895	280	-200	96	6,879	4,918	71.5	229	190
	December	6,970	320	-122	24	7,143	5,193	72.7	233	194
	Average	6,752	326	-11	33	7,034	4,854	69.0	--	--
1987	January	6,714	393	-528	44	6,535	4,822	73.8	251	211
	February	6,365	309	144	22	6,796	5,068	74.6	250	207
	March	6,569	364	51	20	6,964	5,193	74.6	248	205
	April	6,850	374	133	42	7,314	5,405	73.9	242	201
	May	6,991	354	164	48	7,460	5,569	74.7	235	196
	June	7,089	385	111	46	7,539	5,678	75.3	230	193
	July	7,043	452	119	33	7,581	5,740	75.7	226	189
	August	6,933	396	29	19	7,338	5,656	77.1	226	188
	September	6,921	421	-107	30	7,205	5,536	76.8	230	191
	October	6,668	356	302	21	7,305	5,636	77.1	218	182
	November	6,907	484	-208	32	7,151	5,589	78.2	225	188
	December	7,015	320	-24	59	7,251	5,715	78.8	226	189
	Average	6,841	384	15	35	7,206	5,470	75.9	--	--
1988	January	6,723	324	-361	8	6,679	5,392	80.7	239	200
	February	6,736	365	-78	18	7,004	5,571	79.5	241	202
	March	6,695	318	271	18	7,265	5,845	80.4	231	194
	April	6,906	349	148	18	7,384	5,946	80.5	226	190
	May	6,847	415	34	28	7,269	5,813	80.0	226	188
	June*	^R 6,983	^R 424	^R 490	^R 59	^R 7,838	^R 6,356	^R 81.1	^R 209	^R 174
	July**	^E 6,958	^E 387	^E -103	^E 23	^E 7,219	^E 5,915	^E 81.9	^E 215	^E 179
	7-Mo. Average	^E 6,835	^E 369	^E 56	^E 24	^E 7,236	^E 5,834	^E 80.6	--	--
1987	7-Mo. Average	6,808	377	25	37	7,173	5,356	74.7	--	--
1986	7-Mo. Average	6,651	340	2	19	6,974	4,726	67.7	--	--

¹ Stocks are totals as of end of period.² Beginning in 1981, excludes blending components.³ A negative number indicates an increase in stocks and a positive number indicates a decrease.⁴ Includes gasohol.⁵ Includes motor gasoline blending components.⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

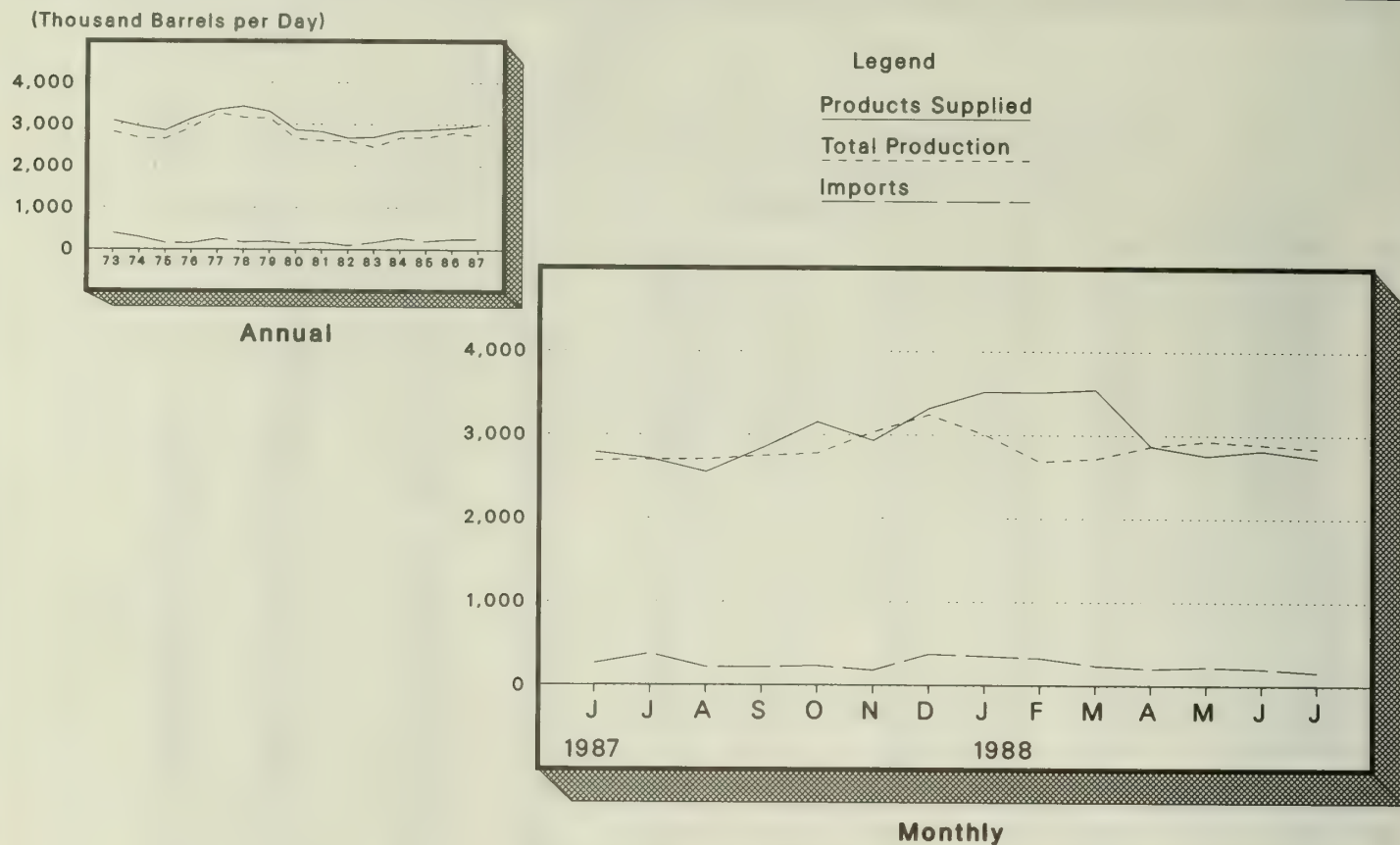


Figure S8. Distillate Fuel Oil Ending Stocks

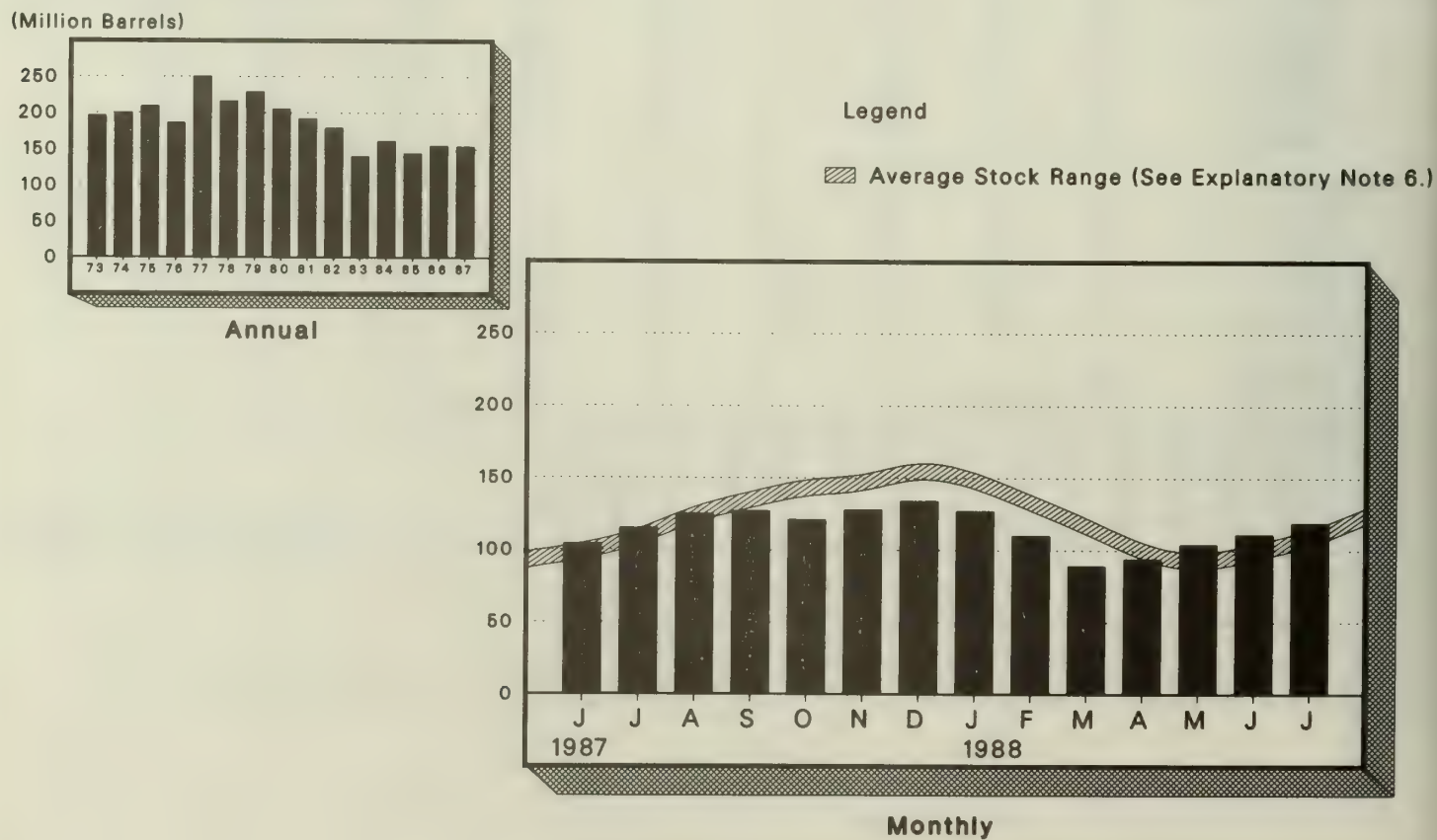


Table S5. Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	Average	2,606	93	35	10	74	2,671	⁴ 179
1983	Average	2,456	174	⁴ 124	-	64	2,690	140
1984	Average	2,681	272	-57	-	51	2,845	161
1985	Average	2,687	200	48	-	67	2,868	144
1986	January	2,899	325	232	-	126	3,330	136
	February	2,563	169	860	-	176	3,416	112
	March	2,643	217	438	-	131	3,168	99
	April	2,788	147	97	-	128	2,904	96
	May	2,858	149	-95	-	149	2,762	99
	June	2,729	169	-301	-	53	2,544	108
	July	2,710	313	-355	-	75	2,592	119
	August	2,922	370	-607	-	64	2,621	138
	September	2,865	262	-489	-	98	2,540	152
	October	2,717	243	25	-	74	2,912	152
	November	2,917	254	-222	-	72	2,877	158
	December	2,943	339	102	-	55	3,329	155
	Average	2,798	247	-31	-	100	2,914	-
1987	January	2,759	222	444	-	115	3,310	141
	February	2,556	253	629	-	93	3,345	124
	March	2,421	297	464	-	67	3,116	109
	April	2,553	192	300	-	53	2,991	100
	May	2,563	203	-31	-	51	2,684	101
	June	2,689	265	-104	-	61	2,790	104
	July	2,700	381	-329	-	38	2,713	115
	August	2,706	222	-327	-	47	2,553	125
	September	2,748	222	-68	-	64	2,838	127
	October	2,780	237	187	-	53	3,151	121
	November	3,035	187	-234	-	56	2,932	128
	December	3,242	378	-209	-	92	3,318	134
	Average	2,731	255	56	-	66	2,976	-
1988	January	3,008	355	236	-	82	3,517	127
	February	2,683	330	604	-	107	3,511	110
	March	2,720	243	656	-	74	3,544	89
	April	2,869	208	-166	-	42	2,870	94
	May	2,931	228	-328	-	74	2,757	104
	June*	^R 2,893	^R 209	^R -207	-	^R 76	^R 2,820	^R 111
	July**	^E 2,845	^E 168	^E -222	-	^E 60	^E 2,732	^E 119
	7-Mo. Average	^E 2,851	^E 248	^E 80	-	^E 73	^E 3,106	-
1987	7-Mo. Average	2,607	259	191	-	58	2,989	-
1986	7-Mo. Average	2,744	214	117	-	119	2,955	-

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

^R = Revised data. (s) = Less than 500 barrels per day. ^E = Estimated.

^{*} See Explanatory Note 9.4.

^{**} Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

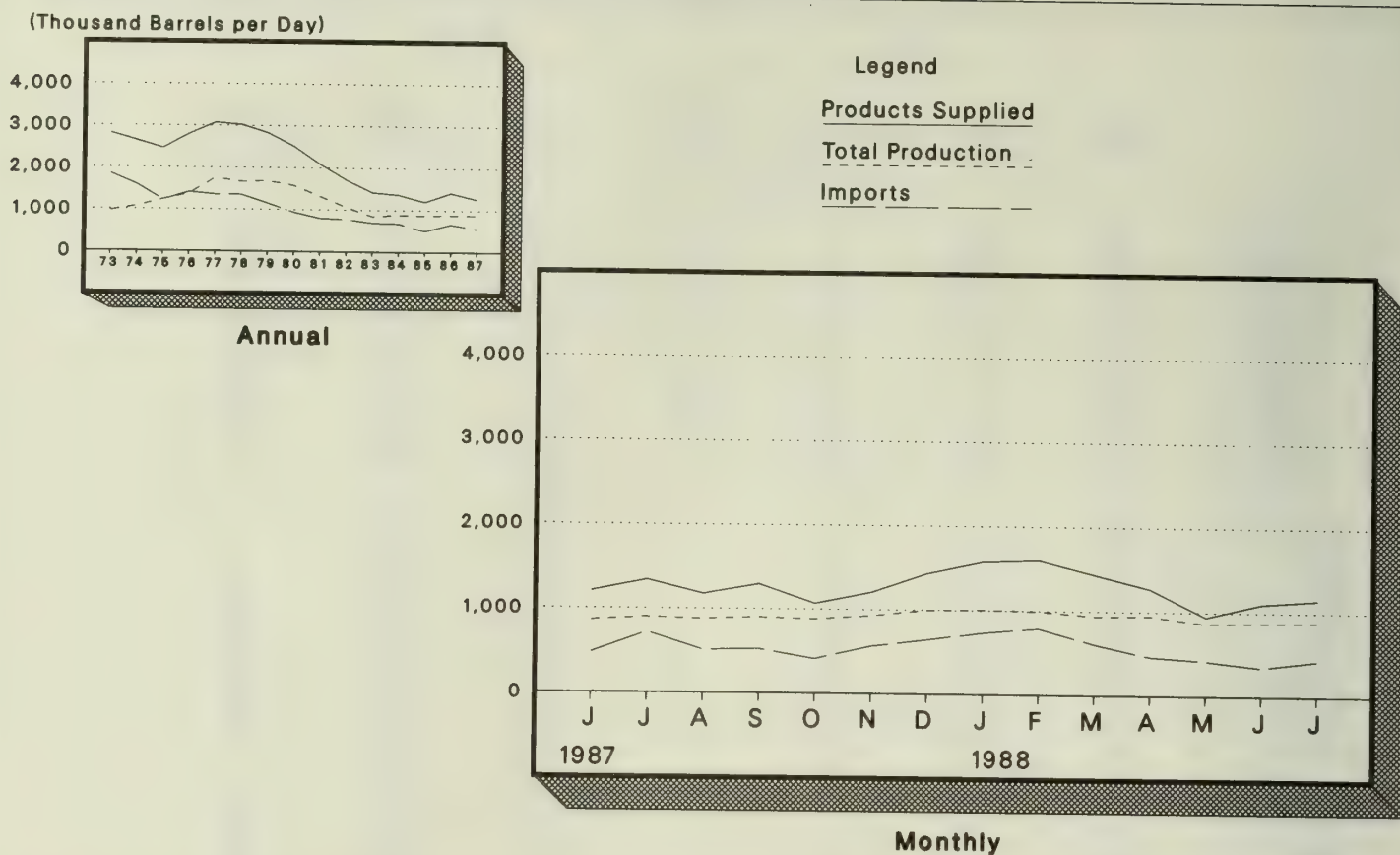


Figure S10. Residual Fuel Oil Ending Stocks

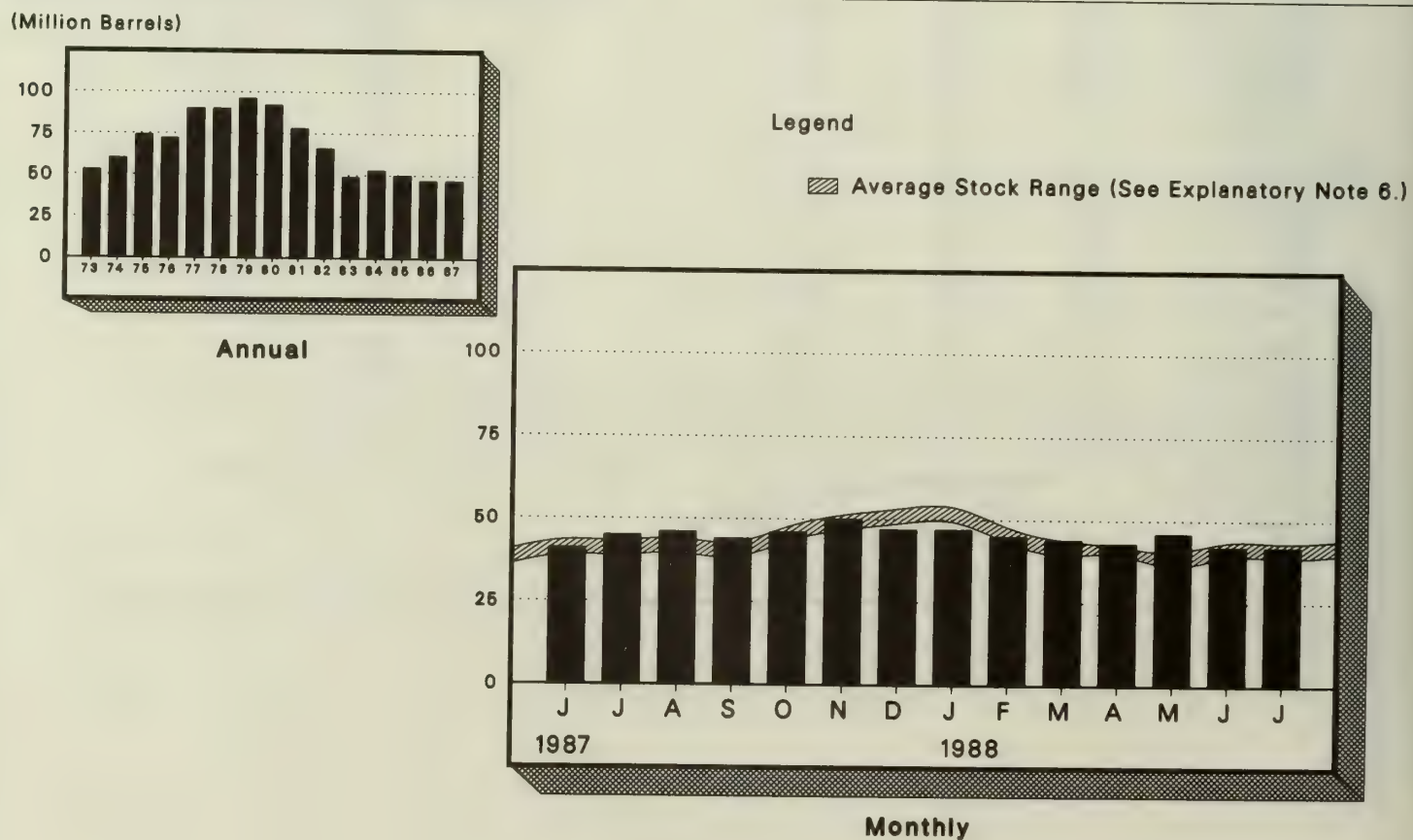


Table S6. Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ¹	Crude Used Directly ²	Exports	Product Supplied ²	
								Million Barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	⁴ 92
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78
1982	Average	1,070	776	32	48	209	1,716	⁴ 66
1983	Average	852	699	⁴ 55	—	185	1,421	49
1984	Average	891	681	-12	—	190	1,369	53
1985	Average	882	510	7	—	197	1,202	50
1986	January	940	622	56	--	211	1,407	49
	February	856	604	200	--	183	1,478	43
	March	813	626	108	--	113	1,435	40
	April	933	545	127	--	202	1,402	36
	May	913	675	-114	--	129	1,345	39
	June	818	712	-111	--	43	1,377	43
	July	850	673	75	--	90	1,508	40
	August	896	793	-29	--	174	1,485	41
	September	854	641	-89	--	110	1,296	44
	October	827	635	-59	--	144	1,259	46
	November	975	574	-15	--	143	1,391	46
	December	987	913	-37	--	224	1,638	47
	Average	889	669	8	--	147	1,418	--
	1987	January	920	701	81	--	198	1,504
February		825	668	243	--	221	1,515	38
March		863	559	-38	--	150	1,234	39
April		831	476	114	--	239	1,182	36
May		813	505	-145	--	144	1,029	40
June		864	481	-33	--	105	1,207	41
July		901	721	-108	--	175	1,339	45
August		882	512	-32	--	185	1,176	46
September		904	526	42	--	177	1,296	44
October		887	414	-39	--	194	1,069	46
November		928	568	-145	--	146	1,205	50
December		1,001	650	83	--	300	1,434	47
Average		885	565	(s)	—	186	1,264	—
1988		January	1,009	737	23	--	190	1,578
	February	997	792	40	--	229	1,601	45
	March	944	610	45	--	165	1,434	44
	April	951	465	27	--	170	1,272	43
	May	866	423	-81	--	263	945	46
	June*	^R 881	^R 349	^R 121	--	^R 249	^R 1,102	^R 42
	July**	^E 888	^E 430	^E 53	--	^E 221	^E 1,149	^E 42
	7-Mo. Average	^E 933	^E 542	^E 32	—	^E 212	^E 1,295	—
	1987	7-Mo. Average	860	587	13	—	175	1,285
1986	7-Mo. Average	875	637	47	—	138	1,421	—

¹ A negative number indicates an increase in stocks and a positive number indicates a decrease.

² Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

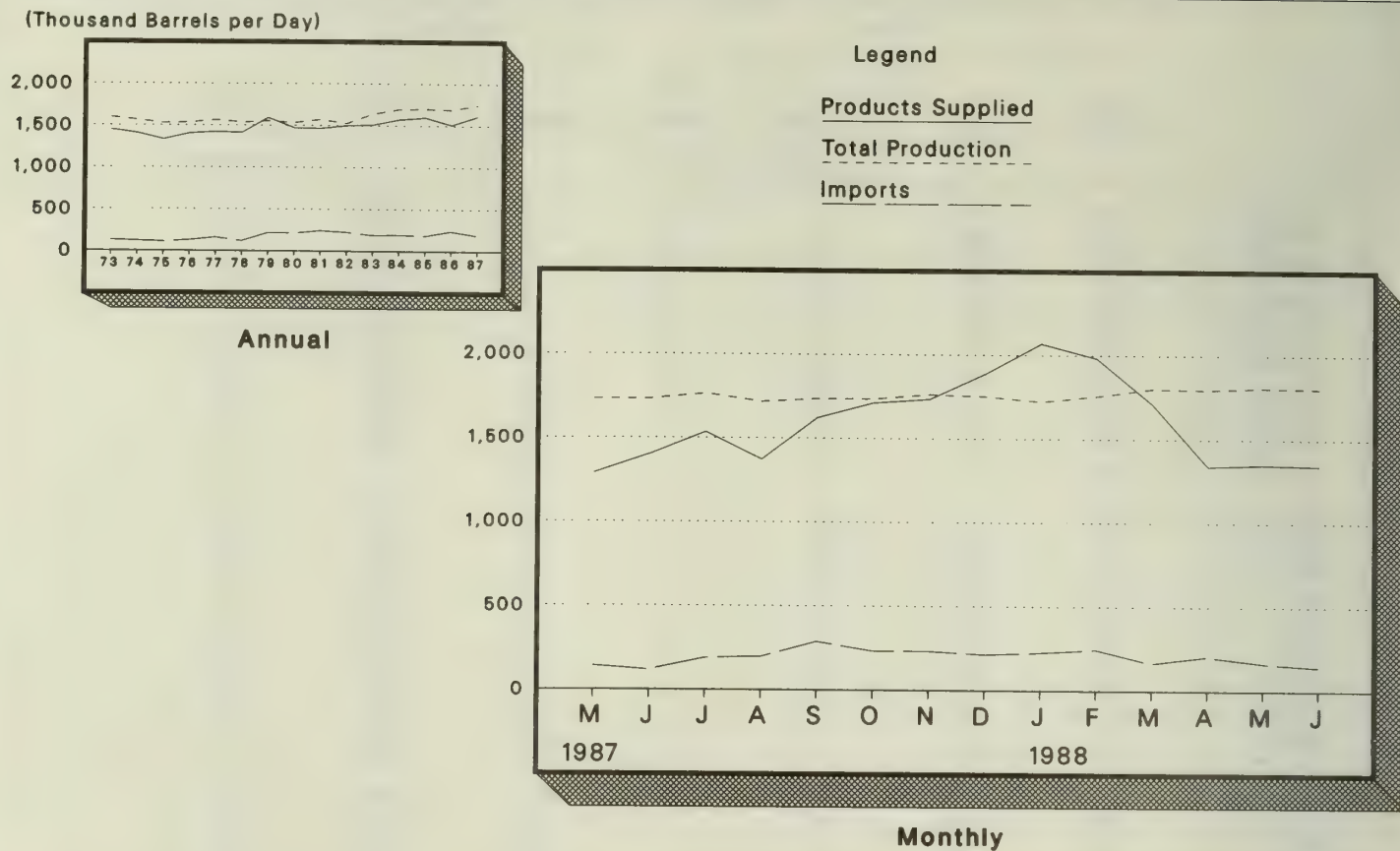


Figure S12. Liquefied Petroleum Gases Ending Stocks

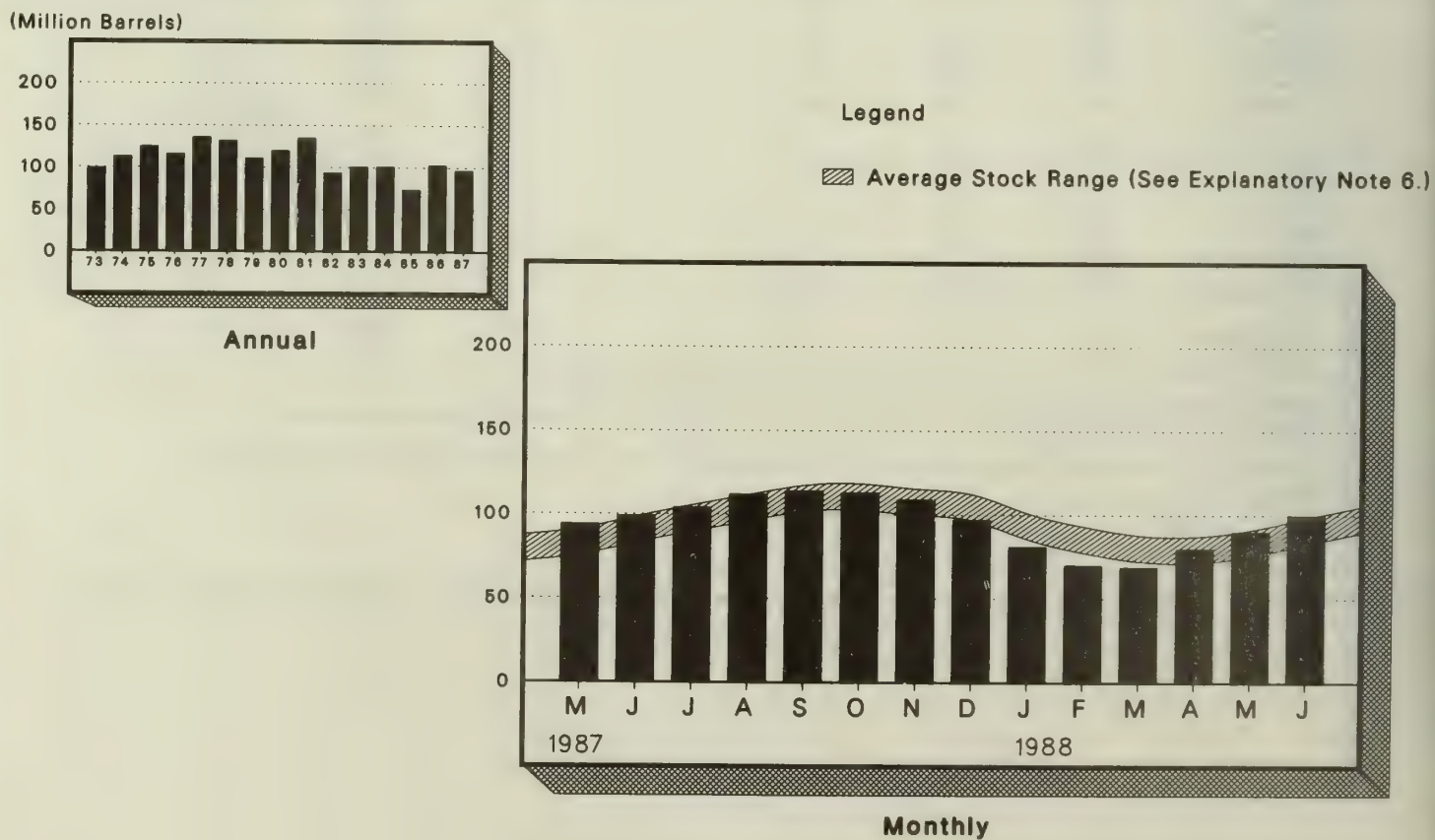


Table S7. Liquefied Petroleum Gases¹ Supply and Disposition

Table S7. Liquefied Petroleum Gases Supply and Disposition								
		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
								Million Barrels
1973	Average	1,600	132	-35	220	27	1,449	99
1974	Average	1,565	123	-38	220	25	1,406	⁴ 113
1975	Average	1,527	112	⁴ -35	246	26	1,333	125
1976	Average	1,535	130	24	260	25	1,404	116
1977	Average	1,566	161	-55	233	18	1,422	136
1978	Average	1,537	123	12	239	20	1,413	132
1979	Average	1,556	217	70	236	15	1,592	111
1980	Average	1,535	216	-27	233	21	1,469	⁴ 120
1981	Average	1,571	244	⁴ -18	289	42	1,466	135
1982	Average	1,528	226	111	300	65	1,499	⁴ 94
1983	Average	1,642	190	⁴ 4	253	73	1,509	⁴ 101
1984	Average	1,697	195	⁴ 19	291	48	1,572	101
1985	Average	1,704	187	75	304	62	1,599	74
1986	January	1,850	280	80	364	47	1,800	71
	February	1,815	208	108	325	74	1,733	68
	March	1,693	202	-98	250	47	1,500	71
	April	1,642	134	-200	256	33	1,286	77
	May	1,685	196	-336	267	40	1,238	87
	June	1,649	253	-490	228	25	1,158	102
	July	1,684	303	-450	199	50	1,287	116
	August	1,619	271	-332	243	53	1,262	126
	September	1,631	282	-142	288	27	1,456	131
	October	1,625	234	249	332	26	1,750	123
	November	1,724	310	254	417	53	1,817	115
	December	1,725	227	411	456	33	1,875	103
	Average	1,695	242	-80	302	42	1,512	-
1987	January	1,751	183	500	419	43	1,971	87
	February	1,762	201	205	341	38	1,789	81
	March	1,761	132	-10	282	52	1,550	82
	April	1,775	149	-121	274	36	1,493	85
	May	1,732	142	-283	269	34	1,288	94
	June	1,732	119	-175	255	22	1,400	99
	July	1,764	190	-145	244	30	1,534	104
	August	1,717	198	-259	252	33	1,372	112
	September	1,736	288	-81	266	56	1,622	114
	October	1,736	233	59	294	23	1,711	113
	November	1,763	233	129	356	35	1,735	109
	December	1,753	214	372	395	56	1,887	97
	Average	1,748	190	15	304	38	1,612	-
1988	January	1,723	226	529	366	44	2,069	81
	February	1,757	245	364	336	47	1,982	70
	March	1,802	165	45	266	36	1,710	69
	April	1,796	205	-362	256	43	1,339	80
	May	1,809	165	-333	253	37	1,350	90
	June*	1,804	144	-333	234	38	1,343	100
	6-Mo. Average	1,782	191	-16	285	41	1,632	-
1987	6-Mo. Average	1,752	154	18	307	38	1,580	-
1986	6-Mo. Average	1,722	213	-158	281	44	1,450	-

¹ Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations.

See Explanatory Note 10.

* See Explanatory Note 9.5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ³
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
Thousand Barrels per Day								Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,418	277	⁴ 4	537	160	3,002	219
1976	Average	3,643	206	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	167	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	Average	3,453	334	80	787	211	2,869	⁴ 253
1983	Average	3,460	411	⁴ 6	712	242	2,923	⁴ 256
1984	Average	3,632	565	⁴ 23	791	245	3,183	240
1985	Average	3,721	588	-17	886	240	3,166	246
1986	January	3,902	541	⁵ -172	967	311	2,993	252
	February	3,868	393	-209	747	270	3,035	⁵ 258
	March	3,754	454	⁵ 21	854	208	3,167	257
	April	3,788	638	-100	760	369	3,196	260
	May	4,055	659	-114	810	298	3,492	⁵ 264
	June	4,209	687	⁵ -70	853	263	3,710	266
	July	4,145	589	⁵ 119	1,064	357	3,432	262
	August	4,223	572	335	1,061	301	3,768	⁵ 252
	September	4,225	571	⁵ 35	846	278	3,708	⁵ 251
	October	3,969	575	⁵ -112	666	375	3,391	254
	November	3,904	559	⁵ 36	940	342	3,217	253
	December	3,920	490	⁵ 90	1,069	325	3,105	250
	Average	3,997	561	-10	888	308	3,353	--
1987	January	3,852	469	-121	659	219	3,323	254
	February	3,796	687	-389	352	320	3,422	265
	March	3,766	663	-128	757	281	3,262	269
	April	3,933	589	107	872	254	3,502	266
	May	4,049	529	178	913	320	3,523	260
	June	4,203	712	158	896	320	3,857	255
	July	4,363	550	91	835	256	3,913	253
	August	4,340	616	-148	693	238	3,876	257
	September	4,350	611	-24	903	353	3,681	258
	October	4,223	686	14	971	272	3,680	258
	November	4,010	583	-20	975	305	3,294	258
	December	4,050	633	261	1,091	330	3,523	250
	Average	4,080	610	1	829	289	3,572	--
1988	January	3,988	639	-143	785	354	3,345	254
	February	3,941	570	-35	726	318	3,433	255
	March	4,175	603	-269	656	328	3,525	264
	April	4,052	697	-97	832	288	3,533	267
	May	4,097	752	-341	471	274	3,763	277
	June*	4,278	703	76	759	379	3,920	275
	6-Mo. Average	4,089	661	-137	704	323	3,587	--
1987	6-Mo. Average	3,934	606	-29	747	285	3,480	--
1986	6-Mo. Average	3,930	564	-106	834	286	3,267	--

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁵ Ending stocks and stock withdrawal for 1986 are slightly different from those published in the 1986 *Petroleum Supply Annual* (PSA)-- Volume 1. PSA statistics inadvertently omitted stocks of other hydrocarbons and alcohol.

* See Explanatory Note 9.6.

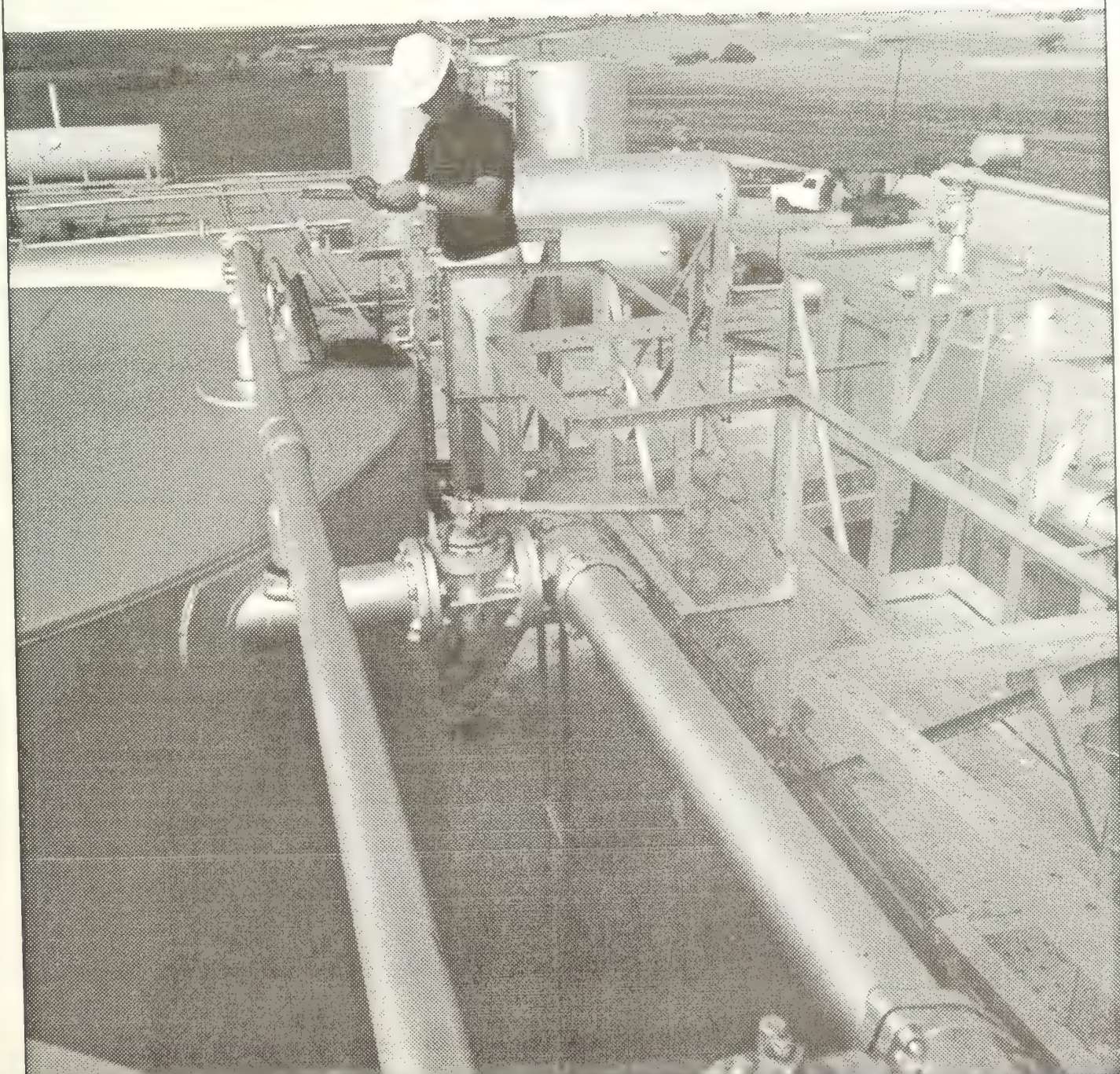
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1987: EIA, *Petroleum Supply Annual*.
4. January 1988 through June 1988: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6.)
5. July 1988: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 1.1.)
6. January 1988 through July 1988: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the U.S. Geological Survey. (See Explanatory Note 3.)

Detailed Statistics



THE UNIVERSITY OF CHICAGO PRESS

Table 1. U.S. Petroleum Balance, June 1988

	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production	E 59,520	E 1,984	E 369,548	E 2,030
(1) Alaska	E 185,211	E 6,174	E 1,134,747	E 6,235
(2) Lower 48 States	E 244,731	E 8,158	E 1,504,295	E 8,265
(3) Total U.S.				
Net Imports	149,555	4,985	886,102	4,869
(4) Imports (Gross Excluding SPR)	2,107	70	9,315	51
(5) SPR Imports	4,232	141	29,763	164
(6) Exports	147,430	4,914	865,654	4,756
(7) Imports (Net Including SPR)				
Other Sources	-2,107	-70	-9,408	-52
(8) SPR Withdrawal (+) or Addition (-)	-1,277	-43	-9,712	-53
(9) Other Stock Withdrawal (+) or Addition (-)	-968	-32	-7,521	-41
(10) Product Supplied and Losses	18,039	601	51,375	282
(11) Unaccounted for 1	13,687	456	24,734	136
(12) Total Other Sources	405,848	13,528	2,394,683	13,158
(13) Crude Input to Refineries				
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	48,157	1,605	292,115	1,605
(15) Net Imports 2	189	6	1,745	10
(16) Stock Withdrawal (+) or Addition (-) 2	-705	-24	-2,358	-13
(17) Total NGPL Supply	47,641	1,588	291,502	1,602
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total	-839	-28	-19,470	-107
(18) Stock Withdrawal (+) or Addition (-)	13,865	462	75,566	415
(19) Imports	1,576	53	10,320	57
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	19,807	660	122,117	671
(21) Refinery Processing Gain 1	967	32	7,498	41
(22) Crude Oil Product Supplied	35,376	1,179	196,031	1,077
(23) Total Other Liquids				
(23) = (18) through (22)				
(24) Total Production of Products 3	488,865	16,296	2,882,216	15,836
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross)	40,773	1,359	293,965	1,615
(26) Exports	23,944	798	122,561	673
(27) Imports (Net)	16,829	561	171,405	942
(28) Total New Supply of Products	505,695	16,856	3,053,621	16,778
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3	5,937	198	38,172	210
(30) Total Petroleum Products Supplied for Domestic Use	511,632	17,054	3,091,793	16,988
(30) = (28) + (29)				
(31) Finished Motor Gasoline	235,137	7,838	1,317,396	7,238
(32) Distillate Fuel Oil	84,586	2,820	576,852	3,170
(33) Residual Fuel Oil	33,049	1,102	240,323	1,320
(34) Liquefied Petroleum Gases	40,305	1,343	296,966	1,632
(35) Other 4	117,588	3,920	652,758	3,587
(36) Crude Oil	967	32	7,498	41
(37) Total Product Supplied	511,632	17,054	3,091,793	16,988
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	359,001	--	359,001	--
(39) Strategic Petroleum Reserve (SPR)	550,056	--	550,056	--
(40) Unfinished Oils	114,952	--	114,952	--
(41) Gasoline Blending Components 5	35,787	--	35,787	--
(42) Pentanes Plus	9,389	--	9,389	--
(43) Finished Refined Products 3	541,442	--	541,442	--
(44) Total Stocks	1,610,627	--	1,610,627	--

1 A balancing item.

2 Includes products in the pentanes plus category only.

3 For products included see Explanatory Note 9.7.

4 Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

5 Includes other hydrocarbons and alcohol.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels)

Commodity	Field Production	Supply			Unaccounted For Crude Oil ¹	Disposition				Ending Stocks
		Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)		Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 244,731	0	151,662	-3,384	18,039	1	405,848	4,232	967	909,057
Natural Gas Liquids and LRGs	48,025	15,200	4,563	-10,701	0	0	11,728	1,189	44,170	109,377
Pentanes Plus	9,094	0	252	-705	0	0	4,713	63	3,865	9,389
Liquefied Petroleum Gases	38,931	15,200	4,311	-9,996	0	0	7,015	1,126	40,305	99,988
Ethane	14,956	321	6	-289	0	0	57	126	14,811	18,619
Propane	14,634	10,250	2,318	-6,214	0	0	268	585	20,135	51,134
Normal Butane	4,997	4,170	1,289	-3,044	0	0	2,418	353	4,641	20,205
Isobutane	4,344	459	698	-449	0	0	4,272	63	718	10,030
Other Liquids	1,576	0	13,865	-839	0	0	18,059	0	-3,457	150,739
Other Hydrocarbons and Alcohol	1,576	0	0	77	0	0	1,653	0	0	400
Unfinished Oils	0	0	11,804	-2,883	0	0	12,779	0	-3,858	114,952
Motor Gasoline Blending Components	0	0	2,061	1,981	0	0	3,641	0	401	35,206
Aviation Gasoline Blending Components	0	0	0	-14	0	0	-14	0	0	181
Finished Petroleum Products	132	440,242	36,462	15,933	0	0	0	22,818	469,951	441,454
Finished Motor Gasoline	10	209,473	12,720	14,694	0	0	0	1,760	235,137	173,763
Finished Leaded Motor Gasoline	9	41,996	530	2,187	0	0	0	271	44,451	42,941
Finished Unleaded Motor Gasoline	1	167,477	12,190	12,507	0	0	0	1,490	190,685	130,822
Finished Aviation Gasoline	0	796	18	159	0	0	0	0	973	1,805
Naphtha-Type Jet Fuel	0	6,244	98	647	0	0	0	0	6,988	6,750
Kerosene-Type Jet Fuel	0	33,987	2,123	402	0	0	0	463	36,049	38,990
Kerosene	0	1,649	263	-366	0	0	0	15	1,531	5,963
Distillate Fuel Oil	49	86,736	6,278	-6,210	0	0	0	2,267	84,586	110,662
Residual Fuel Oil	0	26,423	10,482	3,623	0	0	0	7,479	33,049	42,123
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,642	1,880	61	0	0	0	143	5,440	2,150
Other Oils > 400 Deg. for Petro. Feed. Use	0	6,599	0	206	0	0	0	672	6,133	2,142
Special Naphthas	0	1,945	1,177	-73	0	0	0	182	2,867	3,694
Lubricants	0	5,466	191	-50	0	0	0	982	4,825	13,897
Waxes	0	523	44	4	0	0	0	30	541	799
Petroleum Coke	0	16,369	8	-694	0	0	0	8,723	6,960	8,179
Asphalt and Road Oil	0	17,456	1,145	3,086	0	0	0	60	21,627	25,974
Still Gas	0	20,642	0	0	0	0	0	0	20,642	0
Miscellaneous Products	73	2,292	35	444	0	0	0	41	2,803	3,563
Total	294,464	455,442	206,552	1,009	18,039	1	435,635	28,239	511,632	1,610,627

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - June 1988

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products (Thousand Barrels)										
Commodity	Supply			Stock With- drawal (+) or Addi- tion (-)	Disposition					
	Field Produc- tion	Refinery Produc- tion	Imports		Unac- counted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	1,504,295	0	895,417	-19,120	51,375	23	2,394,683	29,763	7,498	909,057
Natural Gas Liquids and LRGs	291,384	87,403	36,887	-5,194	0	0	80,350	7,784	322,346	109,377
Pentanes Plus	54,475	0	2,113	-2,358	0	0	28,482	368	25,380	9,389
Liquefied Petroleum Gases	236,909	87,403	34,774	2,836	0	0	51,868	7,416	296,666	99,988
Ethane	87,403	1,524	236	3,640	0	0	375	739	91,689	18,919
Propane	92,775	62,201	18,021	-3,285	0	0	1,449	4,400	163,863	51,134
Normal Butane	30,530	21,225	10,310	-3,657	0	0	25,155	1,909	31,344	26,205
Isobutane	26,201	2,453	6,207	466	0	0	24,889	368	10,070	10,030
Other Liquids	10,320	0	75,566	-19,470	0	0	99,558	0	-33,142	150,739
Other Hydrocarbons and Alcohol	10,320	0	0	32	0	0	10,352	0	0	400
Unfinished Oils	0	0	65,474	-21,767	0	0	69,919	0	-26,212	114,952
Motor Gasoline Blending Components	0	0	10,092	2,190	0	0	19,142	0	-6,860	35,206
Aviation Gasoline Blending Components	0	0	0	75	0	0	145	0	-70	181
Finished Petroleum Products	731	2,609,305	259,191	41,008	0	0	0	115,145	2,795,090	441,454
Finished Motor Gasoline	58	1,240,168	66,544	15,131	0	0	0	4,505	1,317,396	173,763
Finished Leaded Motor Gasoline	52	246,302	2,880	10,254	0	0	0	1,298	258,190	42,941
Finished Unleaded Motor Gasoline	6	993,866	63,664	4,877	0	0	0	3,207	1,059,206	130,822
Finished Aviation Gasoline	0	4,195	107	526	0	0	0	0	4,828	1,805
Naphtha-Type Jet Fuel	0	36,774	522	1,206	0	0	0	101	38,401	6,750
Kerosene-Type Jet Fuel	0	211,098	15,002	2,981	0	0	0	6,097	222,984	38,990
Kerosene	0	13,380	2,570	2,484	0	0	0	196	18,238	5,963
Distillate Fuel Oil	274	518,826	47,707	23,820	0	0	0	13,775	576,852	110,662
Residual Fuel Oil	0	171,252	102,234	5,214	0	0	0	38,377	240,323	42,123
Naphtha < 400 Deg. for Petro. Feed Use	0	23,137	12,853	186	0	0	0	786	35,390	2,150
Other Oils > 400 Deg. for Petro. Feed Use	0	40,264	759	-541	0	0	0	3,258	37,224	2,142
Special Naphthas	0	10,262	2,792	-41	0	0	0	893	12,120	3,694
Lubricants	0	32,499	2,042	-580	0	0	0	4,591	29,370	13,897
Waxes	0	3,125	305	-16	0	0	0	250	3,164	799
Petroleum Coke	0	99,158	224	-1,419	0	0	0	41,895	56,068	8,179
Asphalt and Road Oil	0	70,204	5,242	-8,175	0	0	0	87	61,184	24,974
Still Gas	0	122,063	0	0	0	0	0	0	122,063	0
Miscellaneous Products	399	12,900	288	232	0	0	0	334	13,465	3,563
	1,806,730	2,696,708	1,267,061	-2,776	51,375	23	2,574,591	152,692	3,091,793	1,610,627

¹ Unaccounted for crude oil is a balancing item

(\$) = Less than 500 barrels

E = Estimated

Note: Total may not equal sum of components due to independent rounding

Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)									
E 8,158	0		5,055	-113	601	(s)	13,528	141	32
Natural Gas Liquids and LRGs									
Pentanes Plus	1,601	507	152	-357	0	0	391	40	1,472
Liquefied Petroleum Gases	303	0	8	-24	0	0	157	2	129
Ethane	1,298	507	144	-333	0	0	234	38	1,343
Propane	499	11	(s)	-10	0	0	2	4	494
Normal Butane	488	342	77	-207	0	0	9	20	671
Isobutane	167	139	43	-101	0	0	81	12	155
	145	15	23	-15	0	0	142	2	24
Other Liquids									
Other Hydrocarbons and Alcohol	53	0	462	-28	0	0	602	0	-115
Unfinished Oils	53	0	0	3	0	0	55	0	0
Motor Gasoline Blending Components	0	0	393	-96	0	0	426	0	-129
Aviation Gasoline Blending Components	0	0	69	66	0	0	121	0	13
	0	0	0	(s)	0	0	(s)	0	0
Finished Petroleum Products									
4	14,675		1,215	531	0	0	0	761	15,665
Finished Motor Gasoline	(s)	6,982	424	490	0	0	0	59	7,838
Finished Leaded Motor Gasoline	(s)	1,400	18	73	0	0	0	9	1,482
Finished Unleaded Motor Gasoline	(s)	5,583	406	417	0	0	0	50	6,356
Finished Aviation Gasoline	0	27	1	5	0	0	0	0	32
Naphtha-Type Jet Fuel	0	208	3	22	0	0	0	(s)	233
Kerosene-Type Jet Fuel	0	1,133	71	13	0	0	0	15	1,202
Kerosene	0	55	9	-12	0	0	0	(s)	51
Distillate Fuel Oil	2	2,891	209	-207	0	0	0	76	2,820
Residual Fuel Oil	0	881	349	121	0	0	0	249	1,102
Naphtha < 400 Deg. for Petro. Feed. Use	0	121	63	2	0	0	0	5	181
Other Oils > 400 Deg. for Petro. Feed. Use	0	220	0	7	0	0	0	22	204
Special Naphthas	0	65	39	-2	0	0	0	6	96
Lubricants	0	182	6	-2	0	0	0	33	154
Waxes	0	17	1	(s)	0	0	0	1	18
Petroleum Coke	0	546	(s)	-23	0	0	0	291	232
Asphalt and Road Oil	0	582	38	103	0	0	0	2	721
Still Gas	0	688	0	0	0	0	0	0	688
Miscellaneous Products	2	76	1	15	0	0	0	1	93
Total	9,815	15,181	6,885	34	601	(s)	14,521	941	17,054

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - June 1988
(Thousand Barrels per Day)

Commodity		Supply			Disposition					
		Field Production	Refinery Production	Imports	Stock With-drawal (+) or Addi-tion (-)	Unac-counted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)		F 8,265	0	4,920	-105	282	(s)	13,158	164	41
Natural Gas Liquids and LRGs		1,601	480	203	-29	0	0	441	43	1,771
Pentanes Plus		299	0	12	-13	0	0	156	2	139
Liquefied Petroleum Gases		1,302	480	191	-16	0	0	285	41	1,632
Ethane		480	8	1	20	0	0	2	4	504
Propane		510	342	99	-18	0	0	8	24	900
Normal Butane		168	117	57	-20	0	0	138	10	172
Isobutane		144	13	34	3	0	0	137	2	55
Other Liquids		57	0	415	-107	0	0	547	0	-182
Other Hydrocarbons and Alcohol		57	0	0	(s)	0	0	57	0	0
Unfinished Oils		0	0	360	-120	0	0	384	0	-144
Motor Gasoline Blending Components		0	0	55	12	0	0	105	0	38
Aviation Gasoline Blending Components		0	0	0	(s)	0	0	1	0	(-)
Finished Petroleum Products		4	14,337	1,424	225	0	0	0	633	15,358
Finished Motor Gasoline		(s)	6,814	366	83	0	0	0	25	7,238
Finished Leaded Motor Gasoline		(s)	1,353	16	56	0	0	0	7	1,419
Finished Unleaded Motor Gasoline		(s)	5,461	350	27	0	0	0	18	5,820
Finished Aviation Gasoline		0	23	1	3	0	0	0	0	27
Naphtha-Type Jet Fuel		0	202	3	7	0	0	0	1	211
Kerosene-Type Jet Fuel		0	1,160	82	16	0	0	0	34	1,225
Kerosene		0	74	14	14	0	0	0	1	100
Distillate Fuel Oil		2	2,851	262	131	0	0	0	76	3,170
Residual Fuel Oil		0	941	562	29	0	0	0	211	1,320
Naphtha < 400 Deg. for Petro. Feed. Use		0	127	71	1	0	0	0	4	194
Other Oils > 400 Deg. for Petro. Feed. Use		0	221	4	-3	0	0	0	18	205
Special Naphthas		0	56	15	(s)	0	0	0	5	67
Lubricants		0	179	11	-3	0	0	0	25	161
Waxes		0	17	2	(s)	0	0	0	1	17
Petroleum Coke		0	545	1	-8	0	0	0	230	308
Asphalt and Road Oil		0	386	29	-45	0	0	0	(s)	369
Still Gas		0	671	0	0	0	0	0	0	671
Miscellaneous Products		2	71	2	1	0	0	0	2	74
Total		9,927	14,817	6,962	-15	282	(s)	14,146	839	16,988

¹ Unaccounted for crude oil is a balancing item.

(s) Less than 500 barrels per day.

F Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 6. PAD District I--Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)											
E 1,170	0	37,952	-1,223	-731	2,822	0	39,990	0	0	0	17,547
Natural Gas Liquids and LRGs											
772	1,766	527	-364	0	1,726	0	91	92	4,244	4,073	
651	1,766	303	-362	0	1,726	0	63	92	3,929	4,025	
121	0	224	-2	0	0	0	28	0	315	48	
Other Liquids											
17	0	4,902	-228	0	197	0	6,394	0	-1,506	17,148	
17	0	0	56	0	0	0	73	0	0	10	
0	0	3,285	-577	0	162	0	4,125	0	-1,255	12,849	
0	0	1,617	293	0	35	0	2,196	0	-251	4,289	
0	0	0	0	0	0	0	0	0	0	0	
Finished Petroleum Products											
0	47,055	29,327	3,368	0	68,451	0	0	812	147,389	135,800	
0	21,586	11,209	3,492	0	41,307	0	0	57	77,537	55,074	
0	2,312	526	169	0	5,952	0	0	2	8,957	10,404	
0	19,274	10,683	3,323	0	35,355	0	0	55	68,580	44,670	
0	-1	0	4	0	185	0	0	0	188	333	
0	677	0	-192	0	667	0	0	(s)	1,152	1,626	
0	2,082	1,789	-158	0	9,155	0	0	8	12,860	10,087	
0	179	263	-316	0	43	0	0	7	162	2,290	
0	9,915	5,705	-2,609	0	14,356	0	0	159	27,208	37,847	
0	3,828	8,767	1,754	0	665	0	0	1	15,013	16,362	
0	302	228	65	0	34	0	0	40	589	442	
0	170	94	-1	0	418	0	0	23	658	1,070	
0	528	161	209	0	915	0	0	312	1,501	2,950	
0	71	23	11	0	3	0	0	7	101	66	
0	1,240	0	-82	0	0	0	0	173	985	578	
0	4,139	1,061	864	0	669	0	0	(s)	6,733	6,078	
0	1,970	0	0	0	0	0	0	0	1,970	0	
0	369	27	327	0	34	0	0	23	734	997	
1,959	48,821	72,708	1,553	-731	73,196	0	46,475	904	150,127	174,568	

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) -- Less than 500 barrels.

E -- Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 7. PAD District II--Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels)

Commodity	Supply				Disposition				Ending Stocks		
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs		Exports	Products Supplied
Crude Oil (including lease condensate)	E 25,797	0	16,774	-2,567	214	49,946	0	89,760	404	0	82,290
Natural Gas Liquids and LRGs	9,015	2,601	2,465	-3,013	0	-221	0	3,079	523	7,245	31,523
Liquefied Petroleum Gases	7,595	2,601	2,437	-2,999	0	-818	0	2,038	460	6,318	28,589
Pentanes Plus	1,420	0	28	-14	0	597	0	1,041	63	927	2,934
Other Liquids	438	0	0	237	0	-80	0	1,674	0	-1,079	23,289
Other Hydrocarbons and Alcohol	438	0	0	-15	0	0	0	423	0	0	187
Unfinished Oils	0	0	0	-385	0	0	0	-66	0	-319	16,087
Motor Gasoline Blending Components	0	0	0	662	0	-80	0	1,342	0	-760	6,916
Aviation Gasoline Blending Components	0	0	0	-25	0	0	0	-25	0	0	99
Finished Petroleum Products	4	95,981	661	9,201	0	20,773	0	0	667	125,953	108,940
Finished Motor Gasoline	0	51,445	57	7,740	0	13,112	0	0	390	71,964	47,987
Finished Leaded Motor Gasoline	0	10,493	2	920	0	3,497	0	0	4	14,908	13,788
Finished Unleaded Motor Gasoline	0	40,952	55	6,820	0	9,615	0	0	386	57,056	34,199
Finished Aviation Gasoline	0	107	0	7	0	147	0	0	0	261	555
Naphtha-Type Jet Fuel	0	653	98	421	0	-53	0	0	0	1,119	967
Kerosene-Type Jet Fuel	0	5,142	138	218	0	1,787	0	0	0	7,285	7,792
Kerosene	0	114	0	28	0	-83	0	0	1	58	1,632
Distillate Fuel Oil	0	20,514	130	834	0	5,403	0	0	48	25,165	29,647
Residual Fuel Oil	0	1,855	113	-187	0	-158	0	0	0	1,623	3,368
Petrochemical Feedstocks ²	0	1,057	10	91	0	8	0	0	88	1,078	584
Special Naphthas	0	340	70	2	0	184	0	0	3	593	587
Lubricants	0	885	15	-11	0	323	0	0	49	1,163	2,215
Waxes	0	42	11	6	0	0	0	0	3	56	90
Petroleum Coke	0	3,440	0	120	0	0	0	0	27	3,533	2,425
Asphalt and Road Oil	0	5,751	16	1,485	0	102	0	0	55	7,299	10,935
Still Gas	0	4,304	0	0	0	0	0	0	0	4,304	0
Miscellaneous Products	4	332	3	115	0	1	0	0	3	452	296
Total	35,254	98,582	19,900	3,858	214	70,418	0	94,513	1,595	132,119	246,042

¹ Unaccounted for crude oil is a balancing item

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint

(s) - Less than 500 barrels

t - Estimated

Note: Total may not equal sum of components due to independent rounding

Sources and estimation procedures See Explanatory Notes 1 and 2

Table 8. PAD District III--Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels)

Commodity	Supply				Disposition						
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)											
E 109,137	0	90,003	1,713	8,043	-27,802	1	181,093	0	0	719,271	
Natural Gas Liquids and LRGs											
31,875	8,317	1,088	-6,823	0	647	0	7,397	242	27,465	70,371	
26,401	8,317	1,088	-6,122	0	1,022	0	4,000	242	26,464	64,166	
5,474	0	0	-701	0	-375	0	3,397	0	1,001	6,205	
Other Liquids											
852	0	8,963	-116	0	-117	0	10,039	0	-457	69,558	
Other Hydrocarbons and Alcohol	852	0	32	0	0	0	884	0	0	178	
Unfinished Oils	0	8,519	-438	0	-162	0	9,750	0	-1,831	54,375	
Motor Gasoline Blending Components	0	444	294	0	45	0	-591	0	1,374	14,949	
Aviation Gasoline Blending Components	0	0	-4	0	0	0	-4	0	0	56	
Finished Petroleum Products											
124	199,655	4,577	321	0	-92,033	0	0	11,453	101,191	127,153	
Finished Motor Gasoline	10	94,186	100	915	-55,842	0	0	1,083	38,286	46,380	
Finished Leaded Motor Gasoline	9	18,172	0	125	-9,718	0	0	263	8,325	10,758	
Finished Unleaded Motor Gasoline	1	76,014	100	790	-46,124	0	0	820	29,961	35,622	
Finished Aviation Gasoline	0	462	13	98	-350	0	0	0	223	445	
Naphtha-Type Jet Fuel	0	3,091	0	287	-884	0	0	0	2,494	2,083	
Kerosene-Type Jet Fuel	0	16,033	90	312	-11,608	0	0	416	4,411	12,986	
Kerosene	0	1,205	0	-59	40	0	0	0	1,180	1,745	
Distillate Fuel Oil	49	38,901	301	-1,946	-20,201	0	0	0	1,235	15,869	
Residual Fuel Oil	0	10,143	1,359	1,359	-507	0	0	0	2,700	9,694	
Petrochemical Feedstocks ²	0	8,544	1,642	56	-42	0	0	0	530	9,670	
Special Naphthas	0	1,327	1,005	-82	-602	0	0	0	154	1,494	
Lubricants	0	3,346	0	29	-1,228	0	0	0	447	1,700	
Waxes	0	311	4	-21	-3	0	0	0	13	278	
Petroleum Coke	0	7,350	0	-811	0	0	0	0	4,855	1,684	
Asphalt and Road Oil	0	3,968	18	227	-771	0	0	0	2	3,440	
Still Gas	0	9,474	0	0	0	0	0	0	0	9,474	
Miscellaneous Products	65	1,314	5	-43	-35	0	0	0	12	1,294	
Total	141,988	207,972	104,631	-4,905	8,043	-119,305	1	198,529	11,695	128,199	986,353

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 9. PAD District IV--Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels)

Commodity	Supply			Disposition						Ending Stocks	
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	E 16,698	0	2,116	29	3,539	-7,555	0	14,827	0	0	13,304
Natural Gas Liquids and LRGs	3,704	355	228	26	0	-2,152	0	478	40	1,642	1,052
Liquefied Petroleum Gases	2,962	355	228	2	0	-1,930	0	415	40	1,161	909
Pentanes Plus	742	0	0	24	0	-222	0	63	0	481	143
Other Liquids	2	0	0	569	0	0	0	484	0	87	3,820
Other Hydrocarbons and Alcohol	2	0	0	0	0	0	0	2	0	0	9
Unfinished Oils	0	0	0	193	0	0	0	84	0	109	2,192
Motor Gasoline Blending Components	0	0	0	376	0	0	0	398	0	-22	1,619
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	4	15,779	101	113	0	-385	0	0	9	15,603	12,764
Finished Motor Gasoline	0	7,912	50	205	0	-500	0	0	0	7,667	4,597
Finished Leaded Motor Gasoline	0	2,859	2	206	0	-433	0	0	0	2,634	1,944
Finished Unleaded Motor Gasoline	0	5,053	48	-1	0	-67	0	0	0	5,033	2,653
Finished Aviation Gasoline	0	30	0	-5	0	18	0	0	0	43	62
Naphtha-Type Jet Fuel	0	416	0	40	0	-135	0	0	0	321	326
Kerosene-Type Jet Fuel	0	766	0	20	0	468	0	0	0	1,254	737
Kerosene	0	-1	0	1	0	0	0	0	0	75	0
Distillate Fuel Oil	0	3,945	44	-289	0	-236	0	0	0	3,464	3,207
Residual Fuel Oil	0	286	0	-1	0	0	0	0	0	285	489
Petrochemical Feedstocks ²	0	9	0	7	0	0	0	0	1	15	19
Special Naphthas	0	-1	0	2	0	0	0	0	(S)	1	5
Lubricants	0	36	0	-7	0	0	0	0	5	24	101
Waxes	0	27	1	14	0	0	0	0	0	42	73
Petroleum Coke	0	311	0	4	0	0	0	0	1	314	13
Asphalt and Road Oil	0	1,284	6	129	0	0	0	0	1	1,418	3,011
Still Gas	0	690	0	0	0	0	0	0	0	690	0
Miscellaneous Products	4	69	0	-7	0	0	0	0	(S)	66	49
	20,408	16,134	2,445	737	3,539	-10,092	0	15,789	49	17,333	30,940

¹ Unaccounted for crude oil is a balancing item

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint

(S) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 10. PAD District V--Supply and Disposition of Crude Oil and Petroleum Products, June 1988
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PADD of Entry	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)											
E 91,929	0	4,817	-1,336	6,973	-17,411	0	80,178	3,827	967	76,645	
Natural Gas Liquids and LRGs											
2,659	2,161	255	-527	0	0	0	683	292	3,573	2,358	
1,322	2,161	255	-515	0	0	0	499	292	2,432	2,299	
1,337	0	0	-12	0	0	0	184	0	1,141	59	
Other Liquids											
267	0	0	-1,301	0	0	0	-532	0	-502	36,924	
267	0	0	4	0	0	0	271	0	0	16	
0	0	0	-1,676	0	0	0	-1,114	0	-562	29,449	
0	0	0	356	0	0	0	296	0	60	7,433	
0	0	0	15	0	0	0	15	0	0	26	
Finished Petroleum Products											
0	81,772	1,796	2,930	0	3,194	0	0	9,877	79,815	56,797	
0	34,344	1,304	2,342	0	1,923	0	0	230	39,683	19,725	
0	8,160	0	767	0	702	0	0	1	9,628	6,047	
0	26,184	1,304	1,575	0	1,221	0	0	228	30,056	13,678	
0	198	5	55	0	0	0	0	0	258	410	
0	1,407	0	91	0	405	0	0	(s)	1,903	1,748	
0	9,964	106	10	0	198	0	0	39	10,240	7,388	
0	152	0	-20	0	0	0	0	0	132	221	
0	13,461	98	-532	0	678	0	0	825	12,880	12,691	
0	10,311	203	698	0	0	0	0	4,778	6,434	7,738	
0	329	0	48	0	0	0	0	156	221	200	
0	109	8	6	0	0	0	0	1	122	177	
0	671	15	-270	0	-10	0	0	168	238	1,953	
0	72	5	-6	0	0	0	0	7	64	112	
0	4,028	8	75	0	0	0	0	3,668	443	1,838	
0	2,314	44	381	0	0	0	0	2	2,737	2,277	
0	4,204	0	0	0	0	0	0	0	4,204	0	
0	208	0	52	0	0	0	0	0	257	319	
94,855	83,933	6,869	-234	6,973	-14,217	0	80,329	13,996	83,854	172,724	

¹ Unaccounted for crude oil is a balancing item.

² Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.

(s) - Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 11. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	April 1988		January - April	
	Total	Daily Average	Total	Daily Average
PAD District I, Total	E 1,158	E 39	E 4,790	E 40
Florida	641	21	2,690	22
New York	E 49	E 2	E 192	E 2
Pennsylvania	E 244	E 8	E 946	E 8
Virginia	E 3	E 0	E 9	E 0
West Virginia	223	7	908	8
Adjustment ¹	-2	(s)	45	(s)
PAD District II, Total	E 25,479	E 849	E 103,076	E 852
Illinois	1,985	66	8,025	66
Indiana	303	10	1,299	11
Kansas	4,941	165	19,637	162
Kentucky	497	17	1,770	15
Michigan	E 1,996	E 67	E 8,142	E 67
Missouri	E 12	E 0	E 42	E 0
Nebraska	474	16	1,887	16
North Dakota	3,292	110	13,186	109
Ohio	E 902	E 30	E 3,632	E 30
Oklahoma	10,718	357	43,846	362
South Dakota	138	5	567	5
Tennessee	55	2	E 202	E 2
Adjustment ¹	166	6	841	7
PAD District III, Total	E 111,036	E 3,701	E 449,841	E 3,718
Alabama	1,674	56	6,948	57
Arkansas	E 1,161	E 39	E 4,611	E 38
Louisiana ²	13,835	461	56,213	465
Mississippi	2,255	75	9,109	75
New Mexico	5,826	194	23,681	196
Texas ²	61,141	2,038	248,345	2,052
Federal Offshore PAD District III	E 24,366	E 812	E 99,714	E 824
Adjustment ¹	778	26	1,220	10
PAD District IV, Total	E 17,046	E 568	E 68,362	E 565
Colorado	E 2,730	E 91	E 10,432	E 86
Montana	1,892	63	7,871	65
Utah	2,829	94	11,362	94
Wyoming	9,661	322	38,759	320
Adjustment ¹	-66	-2	-62	-1
PAD District V, Total	93,309	3,110	379,204	3,134
Alaska ²	60,876	2,029	247,535	2,046
South Alaska	1,302	43	5,208	43
North Slope	59,575	1,986	242,330	2,003
Adjustment for Alaska ¹	-1	0	-3	(s)
Arizona	8	(s)	38	(s)
California ²	29,347	978	119,131	985
Nevada	258	9	1,024	8
Federal Offshore PAD District V	2,757	92	10,259	85
Adjustment for Arizona, California, and Nevada ¹	63	2	1,217	10
U.S. Total²	E 248,028	E 8,268	E 1,005,273	E 8,308

¹ These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

² Includes the following current month offshore production (thousand barrels): Alaska: State - 4,130; California: State - 2,348; Louisiana: State - 2,082; Texas: State - 150; U.S. Total, including Federal offshore - E 35,833.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: State Conservation Agencies and the U.S. Minerals Management Service.

Table 12. Natural Gas Processing Plant Net Production of Petroleum Products by PAD District, June 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II				PAD District III				Total		New Mexico	Total	PAD District IV		United States
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.						PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast	
Natural Gas Liquids	254	518	772	762	439	7,814	9,015	18,549	3,111	6,176	533	3,506	31,875	3,704	2,659	48,025		
Pentanes Plus	48	73	121	143	128	1,149	1,420	3,412	244	1,174	159	485	5,474	742	1,337	9,094		
Liquefied Petroleum Gases	206	445	651	619	311	6,665	7,595	15,137	2,867	5,002	374	3,021	26,401	2,962	1,322	38,931		
Ethane	60	171	231	128	1	2,618	2,747	6,359	1,164	2,017	91	1,385	11,016	960	2	14,956		
Propane	87	184	271	290	180	2,672	3,142	5,546	1,082	1,788	148	1,046	9,610	1,258	353	14,634		
Normal Butane	49	64	113	105	124	872	1,101	2,356	-832	537	91	399	2,551	516	716	4,997		
Isobutane	10	26	36	96	6	503	605	876	1,453	660	44	191	3,224	228	251	4,344		
Finished Petroleum Products	0	0	0	1	0	3	4	52	55	3	14	0	124	4	0	132		
Finished Motor Gasoline	0	0	0	0	0	0	0	1	9	0	0	0	10	0	0	10		
Finished Leaded Motor Gasoline	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	9		
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1		
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Special Naphthas	0	0	0	0	0	0	0	0	46	3	0	0	49	0	0	49		
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Production	254	518	772	763	439	7,817	9,019	18,601	3,166	6,179	547	3,506	31,999	3,708	2,659	48,157		

* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, June 1988

Commodity	PAD District I			PAD District II			PAD District III				PAD		United States
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La., Gulf Coast	N. La., Ark.	New Mexico	Dist. IV Rocky Mt.	Dist. V West Coast
Crude Oil (including lease condensate)	36,871	3,119	39,990	59,149	9,576	21,035	89,760	93,810	64,569	5,642	2,057	14,927	80,178
Natural Gas Liquids													
Pentanes Plus	28	0	28	333	58	650	1,041	971	1,559	574	188	63	184
Liquefied Petroleum Gases	45	18	63	1,536	43	459	2,038	435	1,399	2,015	95	415	499
Ethane	0	0	0	0	0	0	0	0	0	57	0	0	57
Propane	0	0	0	77	0	0	77	0	128	41	4	18	0
Normal Butane	12	18	30	344	13	52	409	121	505	877	12	283	169
Isobutane	33	0	33	1,115	30	407	1,552	314	766	1,040	83	114	330
Other Liquids													
Other Hydrocarbons and Alcohol	73	0	73	422	1	0	423	0	475	393	0	2	271
Unfinished Oil (net)	3,897	228	4,125	-334	79	189	-66	-128	6,512	3,207	132	84	-1,114
Motor Gasoline Blending Components (net)	2,203	-7	2,196	1,119	144	79	1,342	127	-502	-336	61	398	296
Aviation Gasoline Blending Components (net)	0	0	0	-26	0	1	-25	0	0	-4	0	0	15
Total Input to Refineries	43,117	3,358	46,475	62,199	9,901	22,413	94,513	103,253	70,418	6,118	2,320	15,789	80,329
Crude Oil Distillation													
Gross Input (daily average)	1,233	104	1,337	1,979	321	703	3,003	504	3,191	2,194	185	496	2,726
Operable Capacity (daily average)	1,352	109	1,462	2,251	312	734	3,297	587	3,603	2,947	255	534	3,170
Operating Ratio (percent) ¹	91.2	95.3	91.5	87.9	103.0	95.7	91.1	86.0	88.6	74.5	89.3	92.8	86.0
Downstream Processing													
Fresh Feed Input (daily average)													
Catalytic Cracking	501	17	517	682	109	229	1,020	175	1,214	738	31	166	581
Catalytic Hydrocracking	55	0	55	124	0	5	128	0	194	147	0	6	418
Cokers	69	0	69	142	51	64	257	8	209	340	12	13	482
Crude Oil Qualities													
Sulfur Content, Weighted Average (percent)	1.16	.63	1.12	.98	2.12	.51	.99	.85	.87	1.32	1.39	.86	1.20
API Gravity, Weighted Average	29.81	38.23	30.47	34.09	29.22	37.20	34.30	38.44	33.66	30.79	33.36	35.57	25.45
Operable Capacity (daily average)													
Operating	1,352	109	1,462	2,251	312	734	3,297	587	3,603	2,947	255	534	3,170
Idle	1,342	109	1,452	2,185	312	704	3,201	528	3,431	2,334	248	534	3,041
Alaskan Crude Oil Receipts	10	0	10	66	0	30	96	59	172	613	7	0	129
	2,368	0	2,368	2,766	0	0	2,766	0	5,396	3,727	192	0	40,780
													55,229

¹ Represents gross input divided by operable capacity.

(s) = Less than 500 barrels.

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 14. Refinery Net Production of Petroleum Products by PAD District, June 1988

Commodity	PAD District I			PAD District II			PAD District III				PAD		United States			
	East Coast	Appalachian	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	PAD	
															Dist. IV Rocky Mt.	Dist. V West Coast
	No. 1															
Liquefied Refinery Gases	1,735	31	1,766	1,902	259	440	2,601	264	4,326	3,515	106	106	8,317	355	2,161	15,200
Ethane	119	0	119	18	0	0	18	-53	179	0	0	0	126	0	58	321
Propane	1,181	31	1,212	1,858	219	429	2,506	394	3,027	1,703	84	60	5,268	193	1,071	10,250
Normal Butane	448	0	448	2	30	10	42	-291	1,046	1,830	22	33	2,640	166	874	4,170
Isobutane	-13	0	-13	24	10	1	35	214	74	-18	0	13	283	-4	158	459
Finished Motor Gasoline	20,349	1,237	21,586	34,336	5,053	12,056	51,445	8,650	48,848	33,652	1,791	1,245	94,186	7,912	34,344	209,473
Finished Leaded Motor Gasoline	2,015	297	2,312	5,373	1,244	3,876	10,493	2,419	8,295	6,642	375	441	18,172	2,859	8,160	41,996
Finished Unleaded Motor Gasoline	18,334	940	19,274	28,963	3,809	8,180	40,952	6,231	40,553	27,010	1,416	804	76,014	5,053	26,184	167,477
Finished Aviation Gasoline	-1	0	-1	74	19	14	107	173	182	107	0	0	462	30	198	796
Naphtha-Type Jet Fuel	677	0	677	399	16	238	653	684	1,019	907	202	279	3,091	416	1,407	6,244
Kerosene-Type Jet Fuel	2,082	0	2,082	3,373	522	1,247	5,142	1,043	7,973	6,814	165	38	16,033	766	9,964	33,987
Kerosene	126	53	179	95	28	-9	114	13	1,000	165	27	0	1,205	-1	152	1,649
Distillate Fuel Oil	8,842	1,073	9,915	12,590	2,337	5,587	20,514	3,539	19,684	13,570	1,606	502	38,901	3,945	13,461	86,736
Residual Fuel Oil	3,766	62	3,828	1,478	255	122	1,855	416	5,011	4,432	271	13	10,143	286	10,311	26,423
Naphtha < 400 Deg. for Petro. Feed. Use	293	0	293	480	0	127	625	156	2,280	116	36	2	2,590	-8	142	3,642
Other Oils > 400 Deg. for Petro. Feed. Use	9	0	9	398	0	52	432	137	4,267	1,550	0	0	5,954	17	187	6,599
Special Naphthas	141	29	170	235	0	105	340	74	1,012	63	178	0	1,327	-1	109	1,945
Lubricants	227	301	528	563	0	322	885	37	2,183	662	464	0	3,346	36	671	5,466
Waxes	0	71	71	10	0	32	42	15	158	77	61	0	311	27	72	523
Petroleum Coke	1,217	23	1,240	2,150	559	731	3,440	359	3,352	3,505	117	17	7,350	311	4,028	16,369
Marketable	322	0	322	1,262	416	469	2,147	40	1,689	2,669	70	0	4,468	112	3,116	10,165
Catalyst	895	23	918	888	143	262	1,293	319	1,663	836	47	17	2,882	199	912	6,204
Asphalt and Road Oil	3,857	282	4,139	3,749	949	1,053	5,751	506	897	1,518	960	87	3,968	1,284	2,314	17,456
Still Gas	1,799	171	1,970	2,938	354	1,012	4,304	776	5,281	3,146	190	81	9,474	690	4,204	20,642
Miscellaneous Products	336	33	369	224	39	69	332	26	778	510	0	0	1,314	69	208	2,292
Fuel Use	11	0	11	0	0	0	0	1	0	41	0	0	42	0	0	53
Non-Fuel Use	325	33	358	224	39	69	332	25	778	469	0	0	1,272	69	208	2,239
Total Production	45,455	3,366	48,821	64,994	10,390	23,198	98,582	16,868	108,251	74,309	6,174	2,370	207,972	16,134	83,933	455,442
Processing Gain(-) or Loss(+)	-2,338	-8	-2,346	-2,795	-489	-785	-4,069	-448	-4,998	-3,891	-56	-50	-9,443	-345	-3,604	-19,807

1. Represents the arithmetic difference between input and output.
* Effective January 1987 "Appalachian No.2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District, June 1988

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		PAD District V	United States
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky	Minn., Wisc., Dak.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast	
Liquefied Refinery Gases	4.3	0.9	4.0	3.2	2.7	2.1	1.8	4.3	5.2	1.8	5.1	4.4	2.4	2.7	3.6
Finished Motor Gasoline ²	44.2	36.6	43.6	52.6	49.8	51.2	47.8	45.8	45.7	25.1	48.4	45.3	47.2	41.9	46.0
Finished Aviation Gasoline ³	0	0	0	2	2	1	1.2	2	2	0	0	2	2	2	2
Naphtha-Type Jet Fuel	1.7	0	1.5	7	2	1.1	7	1.0	1.3	3.5	13.4	1.6	2.8	1.8	1.5
Kerosene-Type Jet Fuel	5.1	0	4.7	5.7	5.4	5.9	7.0	7.9	10.1	2.9	1.8	8.4	5.1	12.6	8.1
Kerosene	3	1.6	4.4	2	3	0	1	1.0	2	5	0	6	0	2	4
Distillate Fuel Oil	21.7	32.1	22.5	21.4	24.2	26.3	23.8	19.6	20.0	27.8	24.1	20.4	26.5	17.0	20.7
Residual Fuel Oil	9.2	1.9	8.7	2.5	2.6	6	2.1	5.0	6.5	4.7	6	5.3	1.9	13.0	6.3
Naphtha < 400 Deg. for Petro. Feed, Use	7	0	0.7	8	0	6	1.0	2.3	2	6	1	1.4	-1	2	9
Other Oils > 400 Deg. for Petro. Feed, Use	0	0	0	6	0	9	5	1.0	1	3.1	0	7	0	1	1.6
Special Naphthas	3	9	4.4	4	0	5	4	1.0	1	8.0	0	1.8	2	8	1.3
Lubricants	6	9.0	1.2	1.0	0	1.5	2	2.2	1.0	1.1	0	2	2	1	1
Waxes	0	2.1	0.2	0	0	0.2	0.1	2	1	1.1	0	2	2	1	1
Petroleum Coke	3.0	7	2.8	3.7	5.8	3.4	2.4	3.3	5.2	2.0	8	3.9	2.1	5.1	3.9
Asphalt and Road Oil	9.5	8.4	9.4	6.4	9.8	5.0	3.4	9	2.2	16.6	4.2	2.1	8.6	2.9	4.2
Still Gas	4.4	5.1	4.5	5.0	3.7	4.8	5.2	5.3	4.6	3.3	3.9	5.0	4.6	5.3	4.9
Miscellaneous Products	8	1.0	0.8	4	4	3	2	8	0.8	0	0	7	5	3	5
Processing Gain(-) or Loss(+) ⁴	-5.7	-2	-5.3	-4.8	-5.1	-3.7	-3.0	-5.0	-5.7	-1.0	-2.4	-4.9	-2.3	-4.6	-4.7

¹ Based on crude oil input and net reruns of unfinished oils.

² Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

³ Based on finished aviation gasoline output plus net output of aviation gasoline blending components.

⁴ Represents the difference between input and production.

Note: Total may not equal sum of components due to independent rounding.

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures. See Explanatory Notes 1 and 2.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, June 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ^{1 2}	37,050	26,696	80,983	2,116	4,817	151,662	5,055
Natural Gas Liquids							
Pentanes Plus	527	2,465	1,088	228	255	4,563	152
Liquefied Petroleum Gases	224	28	0	0	0	252	8
Ethane	303	2,437	1,088	228	255	4,311	144
Propane	5	(s)	0	0	(s)	6	(s)
Normal Butane	148	1,797	192	122	60	2,318	77
Isobutane	98	416	580	69	127	1,289	43
	53	224	316	37	68	698	23
Other Liquids ¹	4,902	0	8,963	0	0	13,865	462
Unfinished Oils ¹	3,285	0	8,519	0	0	11,804	393
Naphthas and Lighter	235	0	1,190	0	0	1,425	48
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	1,489	0	1,031	0	0	2,520	84
Residuum	1,561	0	6,298	0	0	7,859	262
Motor Gasoline Blending Components	1,617	0	444	0	0	2,061	69
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	29,327	661	4,577	101	1,796	36,462	1,215
Finished Motor Gasoline	11,209	57	100	50	1,304	12,720	424
Finished Leaded Motor Gasoline	526	2	0	2	0	530	18
Finished Unleaded Motor Gasoline	10,683	55	100	48	1,304	12,190	406
Finished Aviation Gasoline	0	0	13	0	5	18	1
Naphtha-Type Jet Fuel	0	98	0	0	0	98	3
Kerosene-Type Jet Fuel	1,789	138	90	0	106	2,123	71
Bonded Aircraft Fuel	774	138	90	0	100	1,102	37
Other	1,015	0	0	0	6	1,021	34
Kerosene	263	0	0	0	0	263	9
Distillate Fuel Oil	5,705	130	301	44	98	6,278	209
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	5,705	130	301	44	98	6,278	209
Residual Fuel Oil	8,767	113	1,399	0	203	10,482	349
Bonded Ships Bunkers	0	0	0	0	0	0	0
Other	8,767	113	1,399	0	203	10,482	349
Naphtha < 400 Deg. for Petro. Feed. Use	228	10	1,642	0	0	1,880	63
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0	0
Special Naphthas	94	70	1,005	0	8	1,177	39
Lubricants	161	15	0	0	15	191	6
Waxes	23	11	4	1	5	44	1
Petroleum Coke	0	0	0	0	8	8	(s)
Asphalt and Road Oil	1,061	16	18	6	44	1,145	38
Miscellaneous Products	27	3	5	0	0	35	1
Total Imports	71,806	29,822	95,611	2,445	6,869	206,552	6,885

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - June 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Total (Daily Average)
	I	II	III	IV	V	
Crude Oil (including lease condensate) ^{1 2}	207,357	170,526	476,961	10,870	29,703	895,417
Natural Gas Liquids	8,401	16,484	7,622	2,619	1,761	36,887
Pentanes plus	1,539	202	219	153	0	2,113
Liquefied Petroleum Gases	6,862	16,282	7,403	2,466	1,761	34,774
Ethane	30	110	61	1	34	236
Propane	4,087	10,853	1,523	1,251	308	18,021
Normal Butane	1,690	3,294	3,688	753	885	10,310
Isobutane	1,055	2,025	2,131	461	534	6,207
Other Liquids ¹	29,843	1,126	43,435	0	1,162	75,566
Unfinished Oils ¹	20,680	1,105	42,834	0	855	65,474
Naphtha and Lighter	1,239	238	8,088	0	254	9,819
Kerosene and Light Gas Oils	217	0	1,217	0	0	1,434
Heavy Gas Oils	14,575	499	6,522	0	357	21,953
Residuum	4,649	368	27,007	0	244	32,268
Motor Gasoline Blending Components	9,163	21	601	0	307	10,092
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	221,306	6,311	22,433	731	8,411	259,191
Finished Motor Gasoline	60,774	583	1,579	277	3,331	66,544
Finished Leaded Motor Gasoline	2,714	5	39	12	110	2,880
Finished Unleaded Motor Gasoline	58,060	578	1,540	265	3,221	63,664
Finished Aviation Gasoline	0	0	13	0	94	107
Naphtha-Type Jet Fuel	0	506	0	0	16	522
Kerosene-Type Jet Fuel	9,840	3,084	525	0	1,554	15,002
Bonded Aircraft Fuel	5,885	3,084	399	0	1,255	10,622
Other	3,955	0	126	0	299	4,380
Kerosene	1,854	0	716	0	0	2,570
Distillate Fuel Oil	45,518	902	303	435	549	47,707
Bonded Ships Bunkers	0	0	0	0	0	0
Other	45,518	902	303	435	549	47,707
Residual Fuel Oil	95,061	553	4,668	0	1,952	102,234
Bonded Ships Bunkers	0	0	0	0	0	0
Other	95,061	553	4,668	0	1,952	102,234
Naphtha < 400 Deg. for Petro. Feed Use	1,192	79	11,436	0	146	12,853
Other Oils > 400 Deg. for Petro. Feed Use	0	0	545	0	214	759
Special Naphthas	240	353	2,150	1	48	2,792
Lubricants	1,760	68	144	0	70	2,042
Waxes	177	80	10	5	33	305
Petroleum Coke	20	0	104	0	100	224
Asphalt and Road Oil	4,612	83	230	13	304	5,242
Miscellaneous Products	258	20	10	0	0	288
Total Imports	466,906	194,447	550,451	14,220	41,037	1,267,061

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed, all other products are reported by the PAD District of entry

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(S) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, June 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel* Oil	Special Naphthas	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
Arab OPEC														
Algeria	3,393	379	1,561	0	0	0	0	0	1,065	0	1,463	4,468	7,861	262
Iraq	11,515	0	407	0	0	0	0	0	0	0	0	407	11,922	397
Kuwait	0	0	273	0	0	0	0	0	0	0	0	273	273	9
Saudi Arabia	22,471	0	3,755	0	861	170	251	194	0	0	0	5,231	27,702	923
United Arab Emirates	0	0	323	0	0	0	0	0	0	0	0	323	323	11
Subtotal Arab OPEC	37,379	379	6,319	0	861	170	251	194	1,065	0	1,463	10,702	48,081	1,603
Other OPEC														
Ecuador	718	0	0	0	0	0	0	0	538	0	0	538	1,256	42
Gabon	1,387	0	0	0	0	0	0	0	0	0	0	0	1,387	46
Indonesia	4,736	0	0	0	0	0	0	0	0	0	0	0	4,736	158
Nigeria	20,818	0	285	0	0	0	0	0	0	0	0	285	21,103	703
Venezuela	17,019	180	1,199	236	2,126	594	0	2,268	911	1	631	8,146	25,165	839
Subtotal Other OPEC	44,678	180	1,484	236	2,126	594	0	2,268	1,449	1	631	8,969	53,647	1,788
Other														
Angola	4,854	0	0	0	0	0	0	0	322	0	0	322	5,176	173
Argentina	0	0	0	0	0	0	0	0	0	60	0	60	60	2
Australia	1,608	0	0	0	0	0	0	0	0	0	0	0	1,608	54
Bahama Islands	0	0	0	0	0	0	0	0	752	0	0	752	752	25
Belgium	0	0	508	208	0	0	0	0	0	0	5	721	721	24
Brazil	0	50	0	0	2,523	0	0	0	626	17	0	3,216	3,216	107
Cameroon	0	0	0	0	0	0	0	0	55	0	0	55	55	2
Canada	22,330	3,178	19	0	1,520	204	12	1,844	1,088	120	341	8,326	30,656	1,022
China, People's Republic	2,564	0	0	0	243	0	0	0	0	0	0	243	2,807	94
China, Taiwan	0	4	0	0	0	0	0	0	0	0	15	19	19	1
Colombia	1,002	0	0	0	0	0	0	0	101	0	0	101	1,103	37
Congo	1,195	0	0	0	0	0	0	0	0	0	0	0	1,195	40
Egypt	583	0	0	0	0	0	0	0	0	0	0	0	583	19
France	0	0	0	0	0	0	0	0	304	0	0	304	304	10
Germany, FD (W)	0	0	0	0	0	0	0	0	252	0	2	254	254	8
Greece	0	0	0	0	704	0	0	0	0	0	0	704	704	23
Guatemala	220	0	0	0	0	0	0	0	0	0	0	0	220	7
India	0	0	298	0	0	0	0	0	0	866	0	1,164	1,164	39
Israel	0	0	0	0	277	0	0	0	0	0	0	277	277	9
Italy	335	0	333	0	262	0	0	0	279	76	32	982	1,317	44
Japan	0	(s)	0	0	0	0	0	36	0	0	2	38	38	1
Korea, Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Malaysia	364	0	0	0	0	0	0	0	0	0	0	0	364	12
Mexico	21,789	479	0	0	0	419	0	0	4	0	268	1,170	22,959	765
Netherlands Antilles	0	0	0	0	0	0	0	0	580	0	0	580	580	19
Netherlands	0	2	0	66	1,194	0	0	0	234	29	50	1,575	1,575	53
Norway	0	0	16	0	0	0	0	0	0	0	0	16	16	1
Oman	1,301	0	408	0	0	0	0	0	0	0	0	408	1,709	57
Peru	756	0	0	0	0	0	0	0	93	0	0	93	849	28
Philippines	0	34	0	0	0	0	0	0	0	0	0	34	34	1
Portugal	0	0	0	0	0	0	0	0	0	0	20	20	20	1
Puerto Rico	0	0	0	0	0	0	0	0	0	0	392	392	392	13
Romania	0	0	0	1,176	558	0	0	423	230	0	0	2,387	2,387	80

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ June 1988 (continued)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphtha	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Singapore	0	0	0	0	0	0	0	0	160	0	0	160	160	5
South Africa	0	0	0	0	0	0	0	0	210	0	6	216	216	7
Spain	0	0	0	0	912	206	0	0	231	0	253	1,602	1,602	53
Sweden	0	1	0	0	0	0	0	0	174	0	35	210	210	7
Syria	315	0	0	0	0	0	0	0	0	0	0	0	315	11
Trinidad and Tobago	2,389	0	0	0	0	0	0	0	960	0	0	960	3,349	112
Turkey	0	0	33	0	0	0	0	0	0	0	58	91	91	3
United Kingdom	6,004	2	368	0	242	0	0	179	171	0	0	962	6,966	232
U.S.S.R.	0	0	446	0	0	0	0	0	0	8	0	454	454	15
Virgin Islands	0	0	1,572	375	1,298	629	0	1,334	1,142	0	0	6,350	6,350	212
Yemen (Sanaa)	1,595	0	0	0	0	0	0	0	0	0	0	0	1,595	53
Zaire	401	0	0	0	0	0	0	0	0	0	0	0	401	13
Subtotal Other	69,605	3,752	4,001	1,825	9,733	1,457	12	3,816	7,968	1,176	1,479	35,220	104,825	3,494
Total Imports	151,662	4,311	11,804	2,061	12,720	2,221	263	6,278	10,482	1,177	3,573	54,890	206,552	6,885
PAD District I														
Arab OPEC														
Algeria	0	0	1,561	0	0	0	0	0	438	0	0	1,999	1,999	67
Iraq	1,206	0	0	0	606	170	251	194	0	0	0	0	1,206	40
Saudi Arabia	578	0	0	0	606	170	251	194	438	0	0	1,221	1,799	60
Subtotal Arab OPEC	1,784	0	1,561	0	1,212	340	502	388	876	0	0	3,220	5,004	167
Other OPEC														
Ecuador	380	0	0	0	0	0	0	0	538	0	0	538	918	31
Indonesia	565	0	0	0	0	0	0	0	0	0	0	0	565	19
Nigeria	11,124	0	0	0	0	0	0	0	0	0	0	0	11,124	371
Venezuela	5,781	0	230	0	2,026	533	0	2,268	391	1	631	6,080	11,861	395
Subtotal Other OPEC	17,850	0	230	0	2,026	533	0	2,268	929	1	631	6,618	24,468	816
Other														
Angola	1,975	0	0	0	0	0	0	0	322	0	0	322	2,297	77
Argentina	0	0	0	0	0	0	0	0	0	4	0	4	4	(²)
Bahama Islands	0	0	0	0	0	0	0	0	752	0	0	752	752	25
Brazil	0	0	0	0	2,523	0	0	0	626	17	0	3,166	3,166	106
Cameroon	0	0	0	0	0	0	0	0	55	0	0	55	55	2
Canada	2,452	293	5	0	1,315	100	12	1,307	936	42	217	4,227	6,679	223
China, People's Republic	683	0	0	0	0	0	0	0	0	0	0	0	683	23
China, Taiwan	0	4	0	0	0	0	0	0	0	0	0	0	4	(¹)
Colombia	0	0	0	0	0	0	0	0	101	0	0	101	101	3
Congo	742	0	0	0	0	0	0	0	0	0	0	0	742	25
Egypt	583	0	0	0	0	0	0	0	0	0	0	0	583	19
France	0	0	0	0	0	0	0	0	304	0	0	304	304	10
Germany, FD (W)	0	0	0	0	0	0	0	0	0	0	2	2	2	(¹)
Greece	0	0	0	0	704	0	0	0	0	0	0	704	704	23
Israel	0	0	0	0	277	0	0	0	0	0	0	277	277	9
Italy	335	0	333	0	262	0	0	0	279	0	10	884	1,213	41

See footnotes at end of table

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ June 1988 (continued)
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphtha	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Japan	0	(s)	0	0	0	0	0	0	0	0	2	2	2	(s)
Korea, Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Mexico	3,596	0	0	0	0	152	0	0	0	0	224	376	3,972	132
Netherlands Antilles	0	0	0	0	0	0	0	0	580	0	0	580	580	19
Netherlands	0	2	0	66	486	0	0	0	234	22	3	813	813	27
Peru	380	0	0	0	0	0	0	0	93	0	0	93	473	16
Puerto Rico	0	0	0	0	0	0	0	0	0	0	379	379	379	13
Romania	0	0	0	1,176	558	0	0	423	230	0	0	2,387	2,387	80
South Africa	0	0	0	0	912	0	0	0	210	0	3	213	213	7
Spain	0	0	0	0	0	206	0	0	231	0	253	1,602	1,602	53
Sweden	0	0	0	0	0	0	0	0	174	0	0	174	174	6
Syria	315	0	0	0	0	0	0	0	0	0	0	0	315	11
Trinidad and Tobago	932	0	0	0	0	0	0	0	960	0	0	960	1,892	63
United Kingdom	4,453	2	0	0	242	0	0	179	171	0	0	594	5,047	168
U.S.S.R.	0	0	0	0	0	0	0	0	0	8	0	8	8	(s)
Virgin Islands	0	0	1,156	375	1,298	629	0	1,334	1,142	0	0	5,934	5,934	198
Yemen (Sanaa)	970	0	0	0	0	0	0	0	0	0	0	0	970	32
Subtotal Other	17,416	303	1,494	1,617	8,577	1,087	12	3,243	7,400	93	1,093	24,919	42,335	1,411
Total Imports	37,050	303	3,285	1,617	11,209	1,789	263	5,705	8,767	94	1,724	34,756	71,806	2,394
PAD District II														
Arab OPEC														
Iraq	498	0	0	0	0	0	0	0	0	0	0	0	498	17
Saudi Arabia	5,253	0	0	0	0	0	0	0	0	0	0	0	5,253	175
Subtotal Arab OPEC	5,751	0	0	0	0	0	0	0	0	0	0	0	5,751	192
Other OPEC														
Nigeria	1,262	0	0	0	0	0	0	0	0	0	0	0	1,262	42
Venezuela	20	0	0	0	0	61	0	0	0	0	0	61	81	3
Subtotal Other OPEC	1,282	0	0	0	0	61	0	0	0	0	0	61	1,343	45
Other														
Canada	16,774	2,436	0	0	57	98	0	130	113	70	81	2,985	19,759	659
Mexico	2,353	0	0	0	0	76	0	0	0	0	0	76	2,429	81
Peru	376	0	0	0	0	0	0	0	0	0	0	0	376	13
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	2	(s)
Sweden	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Zaire	160	0	0	0	0	0	0	0	0	0	0	0	160	5
Subtotal Other	19,663	2,437	0	0	57	174	0	130	113	70	83	3,064	22,727	758
Total Imports	26,696	2,437	0	0	57	236	0	130	113	70	83	3,126	29,822	994

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 June 1988

Source	Crude Oil 2	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphtha	Other Prod- ucts 3	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District III														
Arab OPEC														
Algeria	3,393	379	0	0	0	0	0	0	627	0	1,463	2,469	5,862	195
Iraq	9,811	0	407	0	0	0	0	0	0	0	0	407	10,218	341
Kuwait	0	0	273	0	0	0	0	0	0	0	0	273	273	9
Saudi Arabia	16,640	0	3,755	0	0	0	0	0	0	0	0	3,755	20,395	680
United Arab Emirates	0	0	323	0	0	0	0	0	0	0	0	323	323	11
Subtotal Arab OPEC	29,844	379	4,758	0	0	0	0	0	627	0	1,463	7,227	37,071	1,236
Other OPEC														
Ecuador	338	0	0	0	0	0	0	0	0	0	0	0	338	11
Gabon	1,387	0	0	0	0	0	0	0	0	0	0	0	1,387	46
Indonesia	1,579	0	0	0	0	0	0	0	0	0	0	0	1,579	53
Nigeria	8,432	0	285	0	0	0	0	0	0	0	0	285	8,717	291
Venezuela	11,218	180	969	236	100	0	0	0	520	0	0	2,005	13,223	441
Subtotal Other OPEC	22,954	180	1,254	236	100	0	0	0	520	0	0	2,290	25,244	841
Other														
Angola	2,879	0	0	0	0	0	0	0	0	0	0	0	2,879	96
Argentina	0	0	0	0	0	0	0	0	0	56	0	56	56	2
Australia	1,177	0	0	0	0	0	0	0	0	0	0	0	1,177	39
Belgium	0	0	508	208	0	0	0	0	0	0	5	721	721	24
Brazil	0	50	0	0	0	0	0	0	0	0	0	50	50	2
Canada	0	0	14	0	0	0	0	301	0	0	0	315	315	11
China, People's Republic	1,439	0	0	0	0	0	0	0	0	0	0	0	1,439	48
Colombia	1,002	0	0	0	0	0	0	0	0	0	0	0	1,002	33
Congo	453	0	0	0	0	0	0	0	252	0	0	252	252	8
Germany, FD (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Guatemala	220	0	0	0	0	0	0	0	0	0	0	0	220	7
India	0	0	298	0	0	0	0	0	0	866	0	1,164	1,164	39
Italy	0	0	0	0	0	0	0	0	0	76	22	98	98	3
Mexico	15,840	479	0	0	0	90	0	0	0	0	18	587	16,427	548
Netherlands	0	0	0	0	0	0	0	0	0	7	47	54	54	2
Norway	0	0	16	0	0	0	0	0	0	0	0	16	16	1
Oman	1,301	0	408	0	0	0	0	0	0	0	0	408	1,709	57
Portugal	0	0	0	0	0	0	0	0	0	0	20	20	20	1
Puerto Rico	0	0	0	0	0	0	0	0	0	0	13	13	13	(2)
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(5)
Sweden	0	0	0	0	0	0	0	0	0	0	35	35	35	1
Trinidad and Tobago	1,457	0	0	0	0	0	0	0	0	0	0	0	1,457	49
Turkey	0	0	33	0	0	0	0	0	0	0	58	91	91	3
United Kingdom	1,551	0	368	0	0	0	0	0	0	0	0	368	1,919	64
U.S.S.R.	0	0	446	0	0	0	0	0	0	0	0	446	446	15
Virgin Islands	0	0	416	0	0	0	0	0	0	0	0	416	416	14
Yemen (Sanaa)	625	0	0	0	0	0	0	0	0	0	0	0	625	21
Zaire	241	0	0	0	0	0	0	0	0	0	0	0	241	8
Subtotal Other	28,185	529	2,507	208	0	90	0	301	252	1,005	219	5,111	33,296	1,110
Total Imports	80,983	1,088	8,519	444	100	90	0	301	1,399	1,005	1,682	14,628	95,611	3,187

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ June 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District IV														
Other														
Canada	2,116	228	0	0	50	0	0	44	0	0	7	329	2,445	81
Subtotal Other	2,116	228	0	0	50	0	0	44	0	0	7	329	2,445	81
Total Imports	2,116	228	0	0	50	0	0	44	0	0	7	329	2,445	81
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	255	0	0	0	0	0	0	255	255	9
Subtotal Arab OPEC	0	0	0	0	255	0	0	0	0	0	0	255	255	9
Other OPEC														
Indonesia	2,592	0	0	0	0	0	0	0	0	0	0	0	2,592	86
Subtotal Other OPEC	2,592	0	0	0	0	0	0	0	0	0	0	0	2,592	86
Other														
Australia	431	0	0	0	0	0	0	0	0	0	0	0	431	14
Canada	988	221	0	0	98	6	0	62	39	8	36	470	1,458	49
China, People's Republic	442	0	0	0	243	0	0	0	0	0	0	243	685	23
China, Taiwan	0	0	0	0	0	0	0	0	0	0	15	15	15	1
Japan	0	0	0	0	0	0	0	36	0	0	0	36	36	1
Korea, Republic	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Malaysia	364	0	0	0	0	0	0	0	0	0	0	0	364	12
Mexico	0	0	0	0	0	100	0	0	4	0	26	130	130	4
Netherlands	0	0	0	0	708	0	0	0	0	0	0	708	708	24
Philippines	0	34	0	0	0	0	0	0	0	0	0	34	34	1
Singapore	0	0	0	0	0	0	0	0	160	0	0	160	160	5
Subtotal Other	2,225	255	0	0	1,049	106	0	98	203	8	77	1,797	4,022	134
Total Imports	4,817	255	0	0	1,304	106	0	98	203	8	77	2,052	6,869	229

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

(s) — Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - June 1988
(Thousand Barrels)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	22,728	4,590	5,582	0	0	289	0	1,682	11,260	0	10,009	33,412	56,140	308
Iraq	41,807	0	407	0	0	0	0	0	0	0	0	407	42,214	232
Kuwait	10,291	0	2,637	0	0	0	0	0	0	0	0	2,637	12,928	71
Neutral Zone ⁴	3,274	0	0	0	0	0	0	0	0	0	0	0	3,274	18
Saudi Arabia	153,464	704	16,843	335	3,735	1,087	325	2,488	0	0	660	26,177	179,641	987
United Arab Emirates	5,693	0	323	0	0	592	0	342	0	0	213	1,470	7,163	39
Subtotal Arab OPEC	237,257	5,294	25,792	335	3,735	1,968	325	4,512	11,260	0	10,882	64,103	301,360	1,656
Other OPEC														
Ecuador	5,273	0	0	0	0	0	0	0	3,103	0	0	3,103	8,376	46
Gabon	4,434	0	0	0	0	0	0	0	0	0	0	0	4,434	24
Indonesia	30,254	0	1,176	0	0	0	0	0	968	0	214	2,358	32,612	179
Iran	5,25	0	0	0	0	0	0	0	0	0	0	0	5,25	5
Nigeria	97,495	0	603	0	0	0	0	256	1,276	0	0	2,135	99,630	547
Venezuela	88,522	1,517	10,356	395	5,568	4,840	0	12,481	20,140	3	3,490	58,790	147,312	809
Subtotal Other OPEC	226,003	1,517	12,135	395	5,568	4,840	0	12,737	25,487	3	3,704	66,386	292,389	1,607
Other														
Angola	33,669	0	0	0	0	0	0	0	1,760	0	0	1,760	35,429	195
Argentina	57	0	0	0	223	0	0	0	1,006	226	17	1,472	1,529	8
Australia	9,350	0	0	0	0	0	0	8	6,231	0	131	773	10,123	56
Bahama Islands	0	0	0	0	0	0	0	0	0	0	0	6,239	6,239	34
Bahrain	0	0	275	0	0	0	0	0	893	0	0	275	275	2
Belgium	0	0	2,016	208	1,368	0	0	0	0	0	12	4,497	4,497	25
Benin	643	0	0	0	0	0	0	0	0	0	0	0	643	4
Bermuda	0	0	7	0	0	0	0	0	0	0	0	7	7	(s)
Brazil	338	412	15	0	11,355	0	219	1,065	3,659	18	43	16,786	16,786	92
Brunei	5,272	0	0	0	0	0	0	0	0	0	0	0	5,272	2
Cameroon	125,224	22,839	1,027	21	8,168	1,937	150	11,653	6,157	679	1,786	54,418	179,642	987
Canada	15,748	1	0	307	399	0	0	0	0	0	168	875	16,623	91
China, People's Republic	0	36	0	0	0	0	0	0	0	0	42	78	78	(s)
China, Taiwan	0	0	0	0	0	0	0	0	4,687	0	0	4,687	22,975	126
Colombia	18,288	0	0	0	0	0	0	0	271	0	0	271	5,476	30
Congo	5,205	0	0	0	0	0	0	0	0	0	7	7	3,449	19
Egypt	3,442	0	0	0	292	0	0	0	0	0	0	292	292	2
Finland	0	0	0	0	1,006	0	0	656	751	0	92	1,885	1,885	10
France	0	36	0	0	0	0	0	0	252	0	0	656	656	4
Germany, DR (E)	0	0	0	0	310	0	0	0	298	4	46	621	621	3
Germany, FD (W)	0	9	151	0	0	0	0	0	0	0	0	449	449	2
Ghana	0	0	239	0	2,187	0	0	134	1,070	0	0	3,630	3,630	20
Greece	0	0	0	0	0	0	0	0	0	0	0	0	420	2
Guatemala	420	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Hong Kong	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
Hungary	0	0	3,106	0	0	0	0	0	0	1,548	0	4,654	4,654	26
India	0	0	174	0	0	0	0	0	0	0	0	174	174	1
Ireland	0	0	0	0	850	0	0	755	1,152	23	0	873	873	5
Israel	0	0	2,984	0	5,931	336	0	0	0	94	42	11,295	12,873	71
Italy	1,578	1	0	0	0	0	0	57	0	22	266	364	364	2
Japan	0	19	0	0	0	10	0	0	0	0	74	91	91	1
Korea, Republic	0	0	0	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - June 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
All PAD Districts (continued)														
Other (continued)														
Liberia	0	0	0	0	0	0	0	210	0	0	0	210	210	1
Malaysia	788	0	0	0	0	0	0	0	0	0	0	0	788	4
Mauritania	0	0	0	0	0	0	0	0	245	0	0	245	245	1
Mexico	121,642	4,472	0	157	417	2,245	0	943	1,307	0	1,423	10,964	132,606	729
Netherlands Antilles	0	0	0	0	499	0	0	450	4,483	0	0	5,432	5,432	30
Netherlands	7,231	8	58	66	6,029	0	151	1,182	1,551	37	208	9,290	9,290	51
Norway	2,140	0	488	0	0	0	0	0	61	0	351	900	8,131	45
Oman	756	0	837	0	0	0	0	0	0	0	0	837	2,977	16
Peru	0	74	0	0	0	0	0	0	5,333	0	0	5,333	6,089	33
Philippines	0	0	0	0	0	0	0	0	0	0	0	74	74	(s)
Portugal	0	0	0	0	0	0	0	0	0	28	20	48	48	(s)
Puerto Rico	0	0	761	0	0	0	0	0	0	0	3,164	3,925	3,925	22
Romania	0	0	601	6,535	3,243	0	0	867	527	0	0	11,172	11,172	61
Singapore	0	0	0	0	0	25	0	0	1,372	0	0	1,998	1,998	11
South Africa	0	0	0	0	0	0	0	0	210	0	50	260	260	1
Spain	0	40	1,368	142	4,851	1,239	0	0	852	0	1,051	9,543	9,543	52
Sweden	0	2	0	0	0	0	0	372	753	0	145	1,272	1,272	7
Switzerland	0	(s)	0	0	0	0	0	0	0	0	2	2	2	(s)
Syria	616	0	0	0	0	431	115	0	194	0	0	194	810	4
Trinidad and Tobago	12,976	0	0	0	138	0	0	201	3,788	0	0	4,673	17,649	97
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	1
Turkey	0	0	823	0	0	0	0	0	0	34	105	962	962	5
United Kingdom	59,911	6	1,537	0	4,777	208	0	1,187	1,498	68	98	9,380	69,291	381
U.S.S.R.	0	0	1,287	0	149	0	0	3,128	27	8	0	4,599	4,599	25
Virgin Islands	0	0	9,573	1,926	5,049	2,284	1,610	7,590	13,586	0	0	41,618	41,618	229
Yemen (Sanaa)	1,595	0	0	0	0	0	0	0	0	0	0	0	1,595	9
Zaire	5,268	0	0	0	0	0	0	0	0	0	0	0	5,268	29
Subtotal Other	432,157	27,963	27,547	9,362	57,241	8,716	2,245	30,458	65,487	2,789	9,347	241,156	673,313	3,700
Total Imports	895,417	34,774	65,474	10,092	66,544	15,524	2,570	47,707	102,234	2,792	23,933	371,644	1,267,061	6,962
PAD District I														
Arab OPEC														
Algeria	0	2,810	4,516	0	0	289	0	1,682	9,177	0	0	18,474	18,474	102
Iraq	1,206	0	0	0	0	0	0	0	0	0	0	0	1,206	7
Neutral Zone ⁴	650	0	0	0	0	0	0	0	0	0	0	0	650	4
Saudi Arabia	12,833	704	355	335	2,926	821	325	2,488	0	0	0	7,954	20,787	114
United Arab Emirates	769	0	0	0	0	0	0	342	0	0	0	342	1,111	6
Subtotal Arab OPEC	15,458	3,514	4,871	335	2,926	1,109	325	4,512	9,177	0	0	26,770	42,228	232
Other OPEC														
Ecuador	3,419	0	0	0	0	0	0	0	3,103	0	0	3,103	6,522	36
Gabon	1,995	0	0	0	0	0	0	0	0	0	0	0	1,995	11
Indonesia	1,126	0	0	0	0	0	0	0	968	0	0	968	2,094	12
Nigeria	56,001	0	0	0	0	0	0	256	1,276	0	0	1,532	57,533	316
Venezuela	23,432	816	2,175	159	4,473	3,382	0	12,479	19,620	3	3,216	46,324	69,756	383
Subtotal Other OPEC	85,973	816	2,175	159	4,473	3,382	0	12,735	24,967	3	3,216	51,927	137,900	758

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - June 1988

Table 19: Year to Date Imports (Thousand Barrels)														
Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I (continued)														
Other	18,515	0	0	0	0	0	0	0	1,760	0	0	1,760	20,275	111
Angola	57	0	0	0	223	0	0	0	1,006	27	0	1,256	1,313	7
Argentina	551	0	0	0	0	0	0	0	182	0	80	262	813	4
Australia	0	0	0	0	0	0	0	8	6,004	0	0	6,012	6,012	33
Bahama Islands	0	0	0	0	1,368	0	0	0	893	0	0	2,590	2,590	14
Belgium	643	0	329	0	0	0	0	0	0	0	0	0	643	4
Benin	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	15	0	10,627	0	219	1,065	3,659	17	43	15,645	15,645	86
Cameroon	3,769	0	0	0	0	0	0	0	871	0	0	871	4,640	25
Canada	10,739	2,482	569	0	6,515	1,086	150	9,523	4,787	77	709	25,898	36,637	201
China, People's Republic	6,407	0	0	0	0	0	0	0	0	0	98	98	6,505	36
China, Taiwan	0	22	0	0	0	0	0	0	0	0	0	22	10,143	56
Colombia	5,456	0	0	0	0	0	0	0	4,687	0	0	4,687	1,489	8
Congo	1,218	0	0	0	0	0	0	0	271	0	0	271	3,445	19
Egypt	3,442	0	0	0	0	0	0	0	0	0	3	3	292	2
Finland	0	0	0	0	292	0	0	0	0	0	41	1,800	1,800	10
France	0	2	0	0	1,006	0	0	0	751	0	0	0	656	4
Germany, DR (E)	0	0	0	0	0	0	0	656	0	0	0	656	332	2
Germany, FR (W)	0	9	0	0	310	0	0	0	0	0	13	332	431	2
Ghana	0	0	133	0	0	0	0	0	298	0	0	431	3,391	19
Greece	0	0	0	0	2,187	0	0	134	1,070	0	0	3,391	4	(s)
Hungary	0	0	0	0	0	0	0	0	0	0	4	4	278	2
India	0	0	278	0	850	0	0	0	0	0	0	850	850	5
Israel	0	0	0	0	5,931	0	0	755	1,152	14	20	9,586	10,813	59
Italy	1,227	1	1,713	0	0	0	0	0	0	4	46	51	51	(s)
Japan	0	1	0	0	0	0	0	0	0	0	0	4	4	(s)
Korea, Republic	0	4	0	0	0	0	0	210	0	0	0	210	210	1
Liberia	0	0	0	0	0	0	0	0	245	0	0	245	245	1
Mauritania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	13,294	0	0	0	309	638	0	943	1,033	0	1,188	4,111	17,405	96
Netherlands Antilles	0	0	0	0	230	0	0	450	4,483	0	0	5,163	5,163	28
Netherlands	0	5	0	66	5,321	0	151	1,182	1,551	22	31	8,329	8,329	46
Norway	3,325	0	213	0	0	0	0	0	61	0	351	625	3,950	22
Oman	839	0	0	0	0	0	0	0	0	0	0	0	839	5
Peru	380	0	0	0	0	0	0	0	5,333	0	0	5,333	5,713	31
Puerto Rico	0	0	658	0	0	0	0	0	0	0	2,668	3,326	3,326	18
Romania	0	0	0	6,535	3,243	0	0	867	527	0	0	11,172	11,172	61
South Africa	0	0	565	142	4,850	901	0	0	210	0	23	233	233	1
Spain	0	2	0	0	0	0	0	0	852	0	990	8,303	8,303	46
Sweden	0	1	0	0	0	0	0	372	753	0	0	1,126	1,126	6
Switzerland	0	(s)	0	0	0	0	0	0	0	0	2	2	2	(s)
Syria	616	0	0	0	0	0	0	0	194	0	0	194	810	4
Trinidad and Tobago	2,978	0	0	0	138	230	115	201	3,788	0	0	4,472	7,450	41
United Kingdom	28,823	2	4	0	4,777	208	0	1,187	883	68	32	7,162	35,985	198
U.S.R.	0	0	0	0	149	0	0	3,128	27	8	0	3,312	3,312	18
Virgin Islands	0	0	9,157	1,926	5,049	2,284	894	7,590	13,586	0	0	40,486	40,486	222
Yemen (Sanaa)	970	0	0	0	0	0	0	0	0	0	0	0	970	5
Zaire	2,677	0	0	0	0	0	0	0	0	0	0	0	2,677	15
Subtotal Other	105,926	2,531	13,634	8,669	53,375	5,348	1,529	28,271	60,917	237	6,342	180,853	286,779	1,576

See footnotes at end of table

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - June 1988 (continued)

Source	Crude Oil 2	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 3	Total Products	Total Petroleum	Total (Daily Average)
PAD District I (continued)														
Other (continued)														
Total Imports	207,357	6,862	20,680	9,163	60,774	9,840	1,854	45,518	95,061	240	9,558	259,549	466,906	2,565
PAD District II														
Arab OPEC														
Algeria	2,299	0	0	0	0	0	0	0	0	0	0	0	2,299	13
Iraq	5,915	0	0	0	0	0	0	0	0	0	0	0	5,915	33
Kuwait	656	0	0	0	0	0	0	0	0	0	0	0	656	4
Saudi Arabia	25,820	0	0	0	0	0	0	0	0	0	0	0	25,820	142
United Arab Emirates	177	0	0	0	0	592	0	0	0	0	0	592	769	4
Subtotal Arab OPEC	34,867	0	0	0	0	592	0	0	0	0	0	592	35,459	195
Other OPEC														
Ecuador	779	0	0	0	0	0	0	0	0	0	0	0	779	4
Indonesia	659	0	0	0	0	0	0	0	0	0	0	0	659	4
Nigeria	17,475	0	0	0	0	0	0	0	0	0	0	0	17,475	96
Venezuela	1,813	0	634	0	0	940	0	0	0	0	0	1,574	3,387	19
Subtotal Other OPEC	20,726	0	634	0	0	940	0	0	0	0	0	1,574	22,300	123
Other														
Canada	96,474	16,243	0	21	583	506	0	902	553	353	447	19,608	116,082	638
Colombia	472	0	0	0	0	0	0	0	0	0	0	0	472	3
Congo	480	0	0	0	0	0	0	0	0	0	0	0	480	3
France	0	34	0	0	0	0	0	0	0	0	0	34	34	(s)
Italy	0	0	0	0	0	132	0	0	0	0	0	132	132	1
Japan	0	(s)	0	0	0	0	0	0	0	0	0	0	(s)	(s)
Mexico	11,016	0	0	0	0	969	0	0	0	0	0	969	11,985	66
Norway	447	0	0	0	0	0	0	0	0	0	0	0	447	2
Peru	376	0	0	0	0	0	0	0	0	0	0	0	376	2
Puerto Rico	0	0	103	0	0	0	0	0	0	0	0	103	103	1
South Africa	0	0	0	0	0	0	0	0	0	0	24	24	24	(s)
Spain	0	0	0	0	0	251	0	0	0	0	61	312	312	2
Sweden	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Trinidad and Tobago	176	0	0	0	0	201	0	0	0	0	0	201	377	2
United Kingdom	5,011	4	368	0	0	0	0	0	0	0	0	372	5,383	30
Zaire	481	0	0	0	0	0	0	0	0	0	0	0	481	3
Subtotal Other	114,933	16,282	471	21	583	2,059	0	902	553	353	532	21,756	136,689	751
Total Imports	170,526	16,282	1,105	21	583	3,590	0	902	553	353	532	23,921	194,447	1,068
PAD District III														
Arab OPEC														
Algeria	20,429	1,780	1,066	0	0	0	0	0	2,083	0	10,009	14,938	35,367	194
Iraq	34,686	0	407	0	0	0	0	0	0	0	0	407	35,093	193
Kuwait	9,635	0	2,637	0	0	0	0	0	0	0	0	2,637	12,272	67
Neutral Zone ⁴	2,624	0	0	0	0	0	0	0	0	0	0	0	2,624	14

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District, 1 January - June 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III (continued)														
Arab OPEC														
Saudi Arabia	114,811	0	16,488	0	0	0	0	0	0	0	660	17,148	131,959	725
United Arab Emirates	4,297	0	323	0	0	0	0	0	0	0	213	536	4,833	27
Subtotal Arab OPEC	186,482	1,780	20,921	0	0	0	0	0	2,083	0	10,882	35,666	222,148	1,221
Other OPEC														
Ecuador	1,075	0	0	0	0	0	0	0	0	0	0	0	1,075	6
Gabon	2,439	0	0	0	0	0	0	0	0	0	0	0	2,439	13
Indonesia	8,938	0	922	0	0	0	0	0	0	0	0	922	9,860	54
Iran	5,25	0	0	0	0	0	0	0	0	0	0	0	5,25	5
Nigeria	24,019	0	603	0	0	0	0	0	0	0	0	603	24,622	135
Venezuela	63,277	700	7,547	236	1,095	0	0	2	520	0	133	10,233	73,510	404
Subtotal Other OPEC	99,773	700	9,072	236	1,095	0	0	2	520	0	133	11,758	111,531	613
Other														
Angola	15,154	0	0	0	0	0	0	0	0	0	0	0	15,154	83
Argentina	0	0	0	0	0	0	0	0	0	199	17	216	216	1
Australia	4,717	0	0	0	0	0	0	0	0	0	51	51	4,768	26
Bahama Islands	0	0	0	0	0	0	0	0	227	0	0	227	227	1
Bahrain	0	0	275	0	0	0	0	0	0	0	0	275	275	2
Belgium	0	0	1,687	208	0	0	0	0	0	0	12	1,907	1,907	10
Bermuda	0	0	7	0	0	0	0	0	0	0	0	7	7	(s)
Brazil	0	412	0	0	483	0	0	0	0	1	0	896	896	5
Cameroon	1,503	0	0	0	0	0	0	0	0	0	0	0	1,503	8
Canada	3,510	1	458	0	0	0	0	301	701	200	236	1,897	5,407	30
China, People's Republic	8,034	0	0	0	0	0	0	0	0	0	70	70	8,104	45
Colombia	12,360	0	0	0	0	0	0	0	0	0	0	0	12,360	68
Congo	3,507	0	0	0	0	0	0	0	0	0	0	0	3,507	19
Egypt	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
France	0	0	0	0	0	0	0	0	0	0	51	51	51	(s)
Germany, FD (W)	0	0	0	0	0	0	0	0	252	4	33	289	289	2
Ghana	0	0	18	0	0	0	0	0	0	0	0	18	18	(s)
Greece	0	0	239	0	0	0	0	0	0	0	0	239	239	1
Guatemala	420	0	0	0	0	0	0	0	0	0	0	0	420	2
India	0	0	2,828	0	0	0	0	0	0	1,548	0	4,376	4,376	24
Ireland	0	0	174	0	0	0	0	0	0	0	0	174	174	1
Israel	0	0	0	0	0	0	0	0	0	23	0	23	23	(s)
Italy	351	0	1,271	0	0	0	0	0	0	80	22	1,373	1,724	9
Japan	0	0	0	0	0	0	0	0	0	18	120	138	138	1
Malaysia	424	0	0	0	0	0	0	0	0	0	0	0	424	2
Mexico	97,332	4,472	0	157	0	438	0	0	270	15	70	5,407	102,739	565
Netherlands	0	0	58	0	0	0	0	0	0	0	177	250	250	1
Norway	3,459	0	275	0	0	0	0	0	0	0	0	0	3,734	21
Oman	1,301	0	837	0	0	0	0	0	0	0	0	837	2,138	12
Portugal	0	0	0	0	0	0	0	0	0	28	20	48	48	(s)
Puerto Rico	0	0	0	0	0	0	0	0	0	0	496	496	496	3
South Africa	0	0	0	0	0	0	0	0	0	0	1	1	1	(s)
Spain	0	38	803	0	1	86	0	0	0	0	0	929	929	5
Sweden	0	0	0	0	0	0	0	0	0	0	145	145	145	1
Trinidad and Tobago	9,822	0	0	0	0	0	0	0	0	0	0	0	9,822	54
Tunisia	0	0	220	0	0	0	0	0	0	0	0	220	220	1

See footnotes at end of table

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - June 1988 (continued)

Source	Crude Oil 2	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 3	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III (continued)														
Other (continued)														
Turkey	0	0	823	0	0	0	0	0	0	34	105	962	962	5
United Kingdom	26,077	0	1,165	0	0	0	0	0	615	0	66	1,846	27,923	153
U.S.S.R.	0	0	1,287	0	0	0	0	0	0	0	0	1,287	1,287	7
Virgin Islands	0	0	416	0	0	0	716	0	0	0	0	1,132	1,132	6
Yemen (Sanaa)	625	0	0	0	0	0	0	0	0	0	0	0	625	3
Zaire	2,110	0	0	0	0	0	0	0	0	0	0	0	2,110	12
Subtotal Other	190,706	4,923	12,841	365	484	525	716	301	2,065	2,150	1,696	26,066	216,772	1,191
Total Imports	476,961	7,403	42,834	601	1,579	525	716	303	4,668	2,150	12,711	73,490	550,451	3,024
PAD District IV														
Other														
Canada	10,870	2,465	0	0	277	0	0	435	0	1	171	3,349	14,219	78
China, People's Republic	0	1	0	0	0	0	0	0	0	0	0	1	1	(s)
Subtotal Other	10,870	2,466	0	0	277	0	0	435	0	1	171	3,350	14,220	78
Total Imports	10,870	2,466	0	0	277	0	0	435	0	1	171	3,350	14,220	78
PAD District V														
Arab OPEC														
Saudi Arabia	0	0	0	0	809	266	0	0	0	0	0	1,075	1,075	6
United Arab Emirates	450	0	0	0	0	0	0	0	0	0	0	0	450	2
Subtotal Arab OPEC	450	0	0	0	809	266	0	0	0	0	0	1,075	1,525	8
Other OPEC														
Indonesia	19,531	0	254	0	0	0	0	0	0	0	214	468	19,999	110
Venezuela	0	0	0	0	0	519	0	0	0	0	141	660	660	4
Subtotal Other OPEC	19,531	0	254	0	0	519	0	0	0	0	355	1,128	20,659	114
Other														
Australia	4,082	0	0	0	0	0	0	0	460	0	0	460	4,542	25
Brazil	0	0	0	0	245	0	0	0	0	0	0	245	245	1
Brunei	338	0	0	0	0	0	0	0	0	0	0	0	338	2
Canada	3,631	1,648	0	0	793	345	0	492	116	48	223	3,666	7,297	40
China, People's Republic	1,307	0	0	307	399	0	0	0	0	0	0	706	2,013	11
China, Taiwan	0	14	0	0	0	0	0	0	0	0	42	56	56	(s)
Hong Kong	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Italy	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Japan	0	18	0	0	0	204	0	57	0	0	0	204	204	1
Korea, Republic	0	3	0	0	0	10	0	0	0	0	100	175	175	1
Malaysia	364	0	0	0	0	0	0	0	0	0	74	87	87	(s)
Mexico	0	0	0	0	108	201	0	0	0	0	0	0	364	2
Netherlands	0	0	0	0	269	0	0	0	4	0	165	478	478	3
Netherlands Antilles	0	3	0	0	708	0	0	0	0	0	0	269	269	1
Philippines	0	74	0	0	0	0	0	0	0	0	0	74	74	4

See footnotes at end of table.

Table 19. Year-to-Date Imports of Crude Oil and Petroleum Products by Source and PAD District,¹ January - June 1988 (continued)
(Thousand Barrels)

Source	Crude Oil ²	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distill. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products ³	Total Products	Total Petroleum	Total (Daily Average)
PAD District V (continued)														
Other (continued)														
Singapore	0	0	601	0	0	25	0	0	1,372	0	0	1,998	1,998	11
South Africa	0	0	0	0	0	0	0	0	0	0	2	2	(s)	(s)
Switzerland	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Subtotal Other	9,722	1,761	601	307	2,522	785	0	549	1,952	48	606	9,131	18,853	104
Total Imports	29,703	1,761	855	307	3,331	1,570	0	549	1,952	48	961	11,334	41,037	225

¹ Crude Oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

³ Includes aviation gasoline, aviation gasoline blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F.

⁴ Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with endpoint, other oils equal to or greater than 400 degrees F endpoint, petroleum coke and miscellaneous products.

⁵ A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands.

This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on Oct. 29, 1987.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, June 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					Daily Average
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ¹	0	404	0	0	3,827	4,232
Natural Gas Liquids						141
Pentanes Plus	92	523	242	40	292	1,189
Liquefied Petroleum Gases	0	63	0	0	0	63
Ethane	92	460	242	40	292	1,126
Propane	(s)	125	(s)	0	(s)	126
Normal Butane	31	156	239	16	143	585
Isobutane	61	116	2	24	149	353
Finished Motor Gasoline	0	63	0	0	0	63
Naphtha-Type Jet Fuel	57	390	1,083	0	230	1,760
Kerosene-Type Jet Fuel	(s)	0	0	0	(s)	1
Kerosene	8	0	416	0	39	463
Distillate Fuel Oil	7	1	6	0	0	15
Residual Fuel Oil	159	48	1,235	0	825	2,267
Naphtha < 400 Deg. for Petro. Feed. Use	1	0	2,700	0	4,778	7,479
Other Oils > 400 Deg. for Petro. Feed. Use	40	29	47	1	26	143
Special Naphthas	0	59	483	0	131	672
Lubricants	23	3	154	(s)	1	182
Waxes	312	49	447	5	168	982
Petroleum Coke	7	3	13	0	7	30
Asphalt	173	27	4,855	1	3,668	8,723
Miscellaneous Products	(s)	55	2	1	2	60
Total Product Exports	23	3	12	(s)	3	41
	904	1,190	11,695	49	10,169	24,007
Total Exports	904	1,595	11,695	49	13,996	28,239

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 21. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January - June 1988
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	Total	
Crude Oil (including lease condensate) ¹	0	2,455	0	0	27,308	29,763	164
Natural Gas Liquids	252	3,096	2,997	243	1,194	7,784	43
Pentanes Plus	0	368	0	0	0	368	2
Liquefied Petroleum Gases	252	2,728	2,997	243	1,194	7,416	41
Ethane	1	737	1	0	(s)	739	4
Propane	123	822	2,831	97	526	4,400	24
Normal Butane	128	802	165	146	668	1,909	10
Isobutane	0	368	0	0	0	368	2
Finished Motor Gasoline	152	551	2,926	1	876	4,505	25
Naphtha-Type Jet Fuel	8	0	12	1	80	101	1
Kerosene-Type Jet Fuel	233	2	4,636	0	1,226	6,097	34
Kerosene	57	125	12	0	2	196	1
Distillate Fuel Oil	240	183	6,577	(s)	6,775	13,775	76
Residual Fuel Oil	17	0	12,041	0	26,320	38,377	211
Naphtha < 400 Deg. for Petro. Feed Use	268	135	288	6	88	786	4
Other Oils > 400 Deg. for Petro. Feed Use	16	194	2,014	0	1,035	3,258	18
Special Naphthas	80	41	487	2	282	893	5
Lubricants	1,345	282	2,074	23	866	4,591	25
Waxes	30	40	130	(s)	49	250	1
Petroleum Coke	1,164	431	24,729	1	15,570	41,895	230
Asphalt	6	59	8	4	10	87	(s)
Miscellaneous Products	179	15	111	1	29	334	2
Total Product Exports	4,049	5,155	59,042	282	54,401	122,929	675
Total Exports	4,049	7,609	59,042	282	81,709	152,692	839

¹ Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet, 2) certain domestically produced crude oil destined for Canada, and

3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures. See Explanatory Notes 1 and 2.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, June 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Argentina	0	0	0	0	0	0	2	12	(s)	(s)	(s)	0	15	1
Australia	0	(s)	0	0	0	369	(s)	6	1	518	0	0	894	30
Bahamas	0	17	49	15	404	607	0	6	0	0	0	0	1,098	37
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
Belgium & Luxembourg	0	0	0	0	0	0	0	13	3	434	(s)	1	451	15
Brazil	0	(s)	0	0	0	0	0	19	(s)	96	(s)	1	118	4
Cameroon	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Canada	415	549	506	48	301	289	14	210	5	271	55	167	2,829	94
Chile	0	1	0	0	0	0	(s)	1	0	0	0	2	4	(s)
China, Taiwan	0	3	0	0	1	917	(s)	56	1	2	0	9	990	33
Colombia	0	0	0	0	0	0	2	20	0	(s)	0	1	23	1
Costa Rica	0	0	0	0	(s)	0	6	10	(s)	(s)	(s)	6	22	1
Denmark	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Dominican Republic	0	0	0	0	0	0	0	3	(s)	(s)	0	1	5	(s)
Ecuador	0	(s)	50	0	0	0	1	24	(s)	0	(s)	2	77	3
Egypt	0	0	0	0	0	0	0	3	0	0	0	1	4	(s)
El Salvador	0	0	0	0	0	0	0	2	0	0	0	1	2	(s)
Finland	0	0	0	0	0	0	(s)	1	0	0	0	0	1	(s)
France	0	0	(s)	0	0	0	0	1	0	0	0	0	1	(s)
French Pacific Isl	0	(s)	0	0	0	0	0	1	1	634	0	0	895	30
Ghana	0	0	0	0	0	32	0	(s)	0	0	0	0	32	1
Greece	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Guatemala	0	(s)	214	8	294	0	2	(s)	0	140	0	7	143	5
Guinea	0	122	0	0	0	0	3	14	(s)	0	0	0	662	22
Honduras	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
Hong Kong	0	(s)	0	0	0	0	0	1	2	0	0	0	3	(s)
India	0	(s)	0	0	0	0	0	5	(s)	0	0	1	6	(s)
Indonesia	0	0	0	0	0	0	0	7	(s)	0	0	1	9	(s)
Israel	0	0	22	240	0	0	0	5	0	0	0	(s)	7	(s)
Italy	0	0	0	0	0	0	1	3	1	0	0	(s)	268	9
Ivory Coast	0	0	0	0	0	0	0	19	0	646	0	3	654	22
Jamaica	0	0	0	0	0	0	0	3	0	0	0	0	19	1
Japan	0	0	662	0	54	385	0	3	0	0	0	2	444	15
Jordan	0	2	0	0	303	1,123	25	49	3	2,577	0	64	4,808	160
Korea, Republic	0	0	0	0	0	0	0	3	0	0	0	0	3	(s)
Kuwait	0	7	0	0	67	265	4	25	1	(s)	0	87	456	15
Lebanon	0	0	0	0	0	0	0	3	0	0	0	(s)	3	(s)
Liberia	0	0	0	0	0	0	0	1	(s)	0	0	0	1	(s)
Malaysia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Mexico	0	338	0	0	0	1,177	0	(s)	0	0	(s)	0	1	(s)
Netherlands	0	35	0	0	0	0	4	82	9	82	0	18	1,710	57
Netherlands Antilles	0	0	0	0	0	0	1	13	(s)	1,083	(s)	122	1,254	42
New Zealand	0	0	0	0	0	272	0	1	0	0	0	(s)	272	9
Nigeria	0	0	0	0	0	0	0	2	(s)	145	0	1	148	5
Norway	0	1	0	0	0	0	0	28	0	0	0	0	28	1
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	338	0	(s)	339	11
Panama	0	20	71	0	0	0	0	(s)	0	0	0	0	1	(s)
Peru	0	1	0	153	174	176	0	4	0	0	0	0	445	15
Philippines	0	0	0	0	169	0	0	2	0	(s)	0	1	326	11
Puerto Rico	0	0	0	0	0	0	0	2	(s)	0	0	1	3	(s)
Rep. of South Africa	0	5	0	0	203	(s)	3	18	(s)	77	0	10	239	8
Saudi Arabia	0	0	0	0	0	0	0	(s)	(s)	0	(s)	0	78	3
Singapore	0	(s)	0	0	178	957	1	3	0	(s)	0	1	5	(s)
								4	(s)		0	2	1,143	38

See footnotes at end of table.

(continued)

Table 22. Exports of Crude Oil and Petroleum Products by Destination, June 1988

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Spain	0	0	0	0	0	808	0	2	(s)	0	(s)	63	1,337	45
Surinam	0	18	0	0	0	0	0	1	(s)	0	0	0	19	1
Sweden	0	0	0	0	0	0	1	1	(s)	0	0	(s)	2	(s)
Switzerland	0	0	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Thailand	0	(s)	0	0	0	0	(s)	5	(s)	0	0	2	7	(s)
Trinidad and Tobago	0	0	0	0	80	0	107	(s)	0	0	0	(s)	188	6
Turkey	0	0	0	0	0	0	0	(s)	0	643	0	0	643	21
United Arab Emirates	0	0	0	0	0	0	0	2	(s)	0	0	1	3	(s)
United Kingdom	0	1	31	0	0	0	0	231	(s)	0	1	79	115	4
U.S.S.R.	0	0	0	0	0	0	0	2	(s)	71	0	(s)	302	10
Uruguay	0	0	0	0	0	0	0	2	(s)	112	0	3	119	4
Venezuela	0	1	0	0	0	0	1	2	(s)	0	0	2	3,827	128
Virgin Islands	3,817	1	7	0	0	0	0	(s)	0	38	1	5	53	2
West Germany	0	2	0	0	0	0	1	5	1	56	1	1	58	2
Yugoslavia	0	0	0	0	0	0	0	1	0	295	(s)	4	622	21
Other	0	(s)	147	0	39	101	1	33	(s)	0	0	0	0	0
Total	4,232	1,126	1,760	463	2,267	7,479	182	982	30	8,723	60	934	28,239	941

1 Crude oil exports are restricted to: 1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada, and 3) shipments to U.S. territories

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpoint, other oils equal to or greater than 400 degrees F endpoint and miscellaneous products

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - June 1988
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	19	0	0	0	0	8	20	1	3	(s)	116	166	1
Australia	0	4	0	0	223	2,007	30	49	2	1,601	(s)	26	3,942	22
Bahamas	0	62	375	226	1,111	2,789	0	23	(s)	0	(s)	(s)	4,586	25
Bahrain	0	1	0	0	(s)	0	(s)	(s)	0	188	0	2	191	1
Belgium & Luxembourg	0	19	0	0	0	0	57	135	4	3,612	(s)	5	3,832	21
Brazil	0	50	42	0	0	0	25	50	(s)	182	(s)	3	352	2
Cameroon	0	0	0	0	0	0	0	0	0	75	0	0	75	(s)
Canada	2,465	3,088	965	1,527	1,866	1,914	82	776	55	2,174	65	972	15,948	88
Chile	0	3	0	0	0	0	8	99	1	0	(s)	6	116	1
China, Taiwan	617	10	1	0	582	5,104	1	267	6	171	(s)	46	6,804	37
Colombia	0	(s)	0	0	0	0	5	44	(s)	20	0	13	63	(s)
Costa Rica	0	(s)	10	0	(s)	0	14	45	(s)	536	(s)	16	105	1
Denmark	0	1	0	0	0	0	(s)	2	(s)	0	1	9	549	3
Dominican Republic	0	28	0	0	0	0	(s)	17	(s)	0	0	5	106	1
Ecuador	0	(s)	50	10	(s)	0	3	67	1	0	(s)	5	138	1
Egypt	0	0	0	0	0	0	0	6	0	135	(s)	1	143	1
El Salvador	0	0	0	0	0	0	0	18	0	0	0	1	31	(s)
Finland	0	0	0	0	0	0	3	10	0	0	0	(s)	10	(s)
France	0	3	(s)	0	392	107	1	16	22	1,587	0	673	2,408	13
Ghana	0	1	0	0	0	422	0	2	0	0	0	0	817	4
Greece	0	0	0	0	0	0	0	1	0	173	(s)	(s)	174	1
Guatemala	0	6	0	0	0	0	2	4	(s)	616	0	(s)	628	3
Guinea	0	480	535	37	977	0	9	63	(s)	0	(s)	9	2,110	12
Honduras	0	0	0	0	0	0	0	5	0	0	0	6	5	(s)
Hong Kong	0	44	0	0	70	0	4	23	2	0	0	2	150	1
India	0	1	0	0	0	0	(s)	57	1	0	(s)	29	20	(s)
Indonesia	0	1	0	0	0	0	2	22	(s)	97	(s)	(s)	124	1
Israel	0	1	39	448	0	0	(s)	20	(s)	134	0	6	647	4
Italy	0	111	0	0	0	0	26	27	3	5,736	(s)	565	6,471	36
Ivory Coast	0	0	0	0	0	0	0	25	(s)	0	(s)	(s)	25	(s)
Jamaica	0	99	0	0	186	1,237	0	0	1	(s)	0	6	1,550	9
Japan	0	7	2,010	3,228	5,315	4,265	375	242	18	9,802	(s)	307	25,571	140
Jordan	0	1	0	0	0	0	0	8	0	0	0	0	9	(s)
Korea, Republic	0	42	2	0	68	2,495	13	245	3	493	(s)	567	3,927	22
Kuwait	0	1	0	0	0	0	(s)	6	0	0	0	1	8	(s)
Lebanon	0	(s)	0	0	0	0	0	3	(s)	0	0	(s)	4	(s)
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	8	0	0	(s)	0	(s)	(s)
Mexico	0	(s)	0	0	0	0	0	0	0	0	(s)	0	15	(s)
Netherlands	0	2,881	3	17	1	6,858	25	553	80	454	(s)	78	10,949	60
Netherlands Antilles	0	36	19	0	0	0	16	54	3	4,359	1	315	4,802	26
New Zealand	0	(s)	0	0	65	2,939	0	11	0	0	0	0	3,018	17
Nigeria	0	(s)	0	0	0	0	5	9	(s)	271	1	5	292	2
Norway	0	0	0	0	0	0	0	90	1	0	(s)	(s)	91	(s)
Pacific Trust Terr.	0	5	0	0	(s)	0	0	4	(s)	692	(s)	1	702	4
Panama	0	20	203	0	0	0	0	3	0	0	0	(s)	3	(s)
Peru	0	22	25	687	756	825	8	155	(s)	0	(s)	7	1,973	11
Philippines	0	(s)	0	0	1,222	0	1	37	(s)	(s)	(s)	4	1,998	11
Puerto Rico	2,923	58	4	0	203	85	7	38	1	0	0	7	52	(s)
Rep. of South Africa	0	1	0	0	0	0	7	208	7	11	(s)	59	3,564	20
Saudi Arabia	0	62	0	0	0	0	(s)	5	1	259	(s)	19	126	1

See footnotes at end of table.

(continued)

(continued)

(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Singapore	0	2	0	0	178	3,812	9	27	(³)	1	(³)	128	4,157	23
Spain	0	(³)	0	0	202	2,550	(³)	23	19	3,914	(³)	358	7,066	34
Surinam	0	53	0	0	0	0	(³)	7	0	0	0	(³)	(³)	(³)
Sweden	0	0	0	0	0	0	2	7	(³)	288	(³)	2	300	2
Switzerland	0	(³)	0	0	0	0	1	4	(³)	0	(³)	1	6	(³)
Thailand	0	(³)	0	0	0	0	5	20	1	0	(³)	194	229	1
Trinidad and Tobago	0	4	0	0	80	0	108	1	(³)	0	0	2	195	1
Turkey	0	(³)	0	0	0	0	0	26	(³)	1,042	0	2	1,070	6
United Arab Emirates	0	(³)	0	0	0	5	(³)	52	0	132	(³)	7	157	1
United Kingdom	0	4	54	0	1	204	1	24	3	1,060	4	137	1,494	8
U.S.S.R.	0	0	0	0	0	25	0	481	0	287	0	50	843	5
Uruguay	0	(³)	0	0	0	0	0	4	(³)	0	0	0	5	(³)
Venezuela	0	11	0	5	(³)	0	7	20	1	642	0	19	704	4
Virgin Islands	23,758	4	7	0	0	0	0	16	0	0	0	7	23,792	131
West Germany	0	13	2	0	0	0	16	130	6	320	7	48	541	3
Yugoslavia	0	0	0	0	0	0	0	1	0	263	1	1	266	1
Other	0	153	150	13	221	735	4	107	(³)	558	1	71	2,015	11
Total	29,763	7,416	4,505	6,199	13,775	38,377	893	4,591	250	41,895	87	4,942	152,692	839

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

3) shipments to US territories

3) shipments to U S territories

2 Includes pentanes plus, kerosene, naphtha less than 400 degrees F endpo

(s) : Less than 500 barrels

Note: Total may not equal sum of components due to independent rounding

Note: Total may not equal sum of components due to rounding. Sources and estimating procedures. See Explanatory Notes 1 and 2.

Sources and estimation procedures. See Explanatory Notes.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 30, 1988
(Thousand Barrels)

Commodity	PAD District I		PAD District II		PAD District III				PAD District IV		United States					
	East Coast	Appalachian No.1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast		N. La., Ark.	New Mexico	Total	PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast
Crude Oil (incl. lease condensate)																
Refinery	--	--	16,362	--	--	--	14,039	--	--	--	--	--	51,496	2,450	23,414	107,761
Tank Farms and Pipelines	--	--	1,148	--	--	--	66,778	--	--	--	--	--	101,081	9,720	29,778	208,505
Leases	--	--	37	--	--	--	1,473	--	--	--	--	--	16,638	1,134	1,599	20,881
Strategic Petroleum Reserve ¹	--	--	0	--	--	--	0	--	--	--	--	--	550,056	0	0	550,056
Alaskan In-Transit	--	--	0	--	--	--	0	--	--	--	--	--	0	0	21,854	21,854
Total	--	--	17,547	--	--	--	82,290	--	--	--	--	--	719,271	13,304	76,645	909,057
Total Stocks, All Oils (excl. Crude Oil)																
Refinery	40,403	3,134	43,537	38,744	8,622	15,759	63,125	10,826	78,959	50,567	5,771	1,109	147,232	12,306	67,895	334,095
Bulk Terminal	--	--	86,529	--	--	--	63,628	--	--	--	--	--	71,701	2,710	23,477	248,045
Pipeline	--	--	26,767	--	--	--	34,284	--	--	--	--	--	38,456	2,440	4,619	106,566
Natural Gas Processing Plant	147	41	188	226	41	2,448	2,715	1,183	5,778	2,417	192	123	9,693	180	88	12,864
Total	--	--	157,021	--	--	--	163,752	--	--	--	--	--	267,082	17,636	96,079	701,570
Pentanes Plus																
Refinery	16	0	16	202	16	241	459	335	305	133	11	16	800	0	32	1,307
Bulk Terminal	--	--	23	--	--	--	1,273	--	--	--	--	--	2,663	0	1	3,960
Pipeline	--	--	0	--	--	--	745	--	--	--	--	--	1,101	81	0	1,927
Natural Gas Processing Plant	2	7	9	21	19	417	457	368	601	578	57	37	1,641	62	26	2,195
Total	--	--	48	--	--	--	2,934	--	--	--	--	--	6,205	143	59	9,389
Liquefied Petroleum Gases																
Refinery	912	13	925	2,255	184	483	2,922	2,198	2,595	3,249	28	27	8,097	310	746	13,000
Bulk Terminal	--	--	1,386	--	--	--	16,883	--	--	--	--	--	41,965	53	1,491	61,778
Pipeline	--	--	1,535	--	--	--	6,527	--	--	--	--	--	6,080	428	0	14,570
Natural Gas Processing Plant	145	34	179	205	22	2,030	2,257	797	5,172	1,836	133	86	8,024	118	62	10,640
Total	--	--	4,025	--	--	--	28,589	--	--	--	--	--	64,166	909	2,299	99,988
Ethane																
Refinery	18	0	18	1	0	0	1	65	303	0	0	0	368	0	0	387
Bulk Terminal	--	--	1	--	--	--	1,883	--	--	--	--	--	10,416	0	0	12,300
Pipeline	--	--	0	--	--	--	1,174	--	--	--	--	--	2,260	119	0	3,553
Natural Gas Processing Plant	0	0	0	17	0	350	367	52	1,770	157	5	25	2,009	3	0	2,379
Total	--	--	19	--	--	--	3,425	--	--	--	--	--	15,053	122	0	18,619

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 30, 1988 (continued)

Table 24. Stocks of Crude Oil and Petroleum Products by PAD Districts, (Thousand Barrels)																			
Commodity	PAD District I				PAD District II				PAD District III				PAD District IV		United States				
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	PAD					
														Dist. IV Rocky Mt.		Dist. V West Coast			
Propane																			
Refinery	588	6	594	1,385	30	141	1,556	1,250	1,408	1,420	6	4	4,088	104	110	6,452			
Bulk Terminal	--	--	874	--	--	--	10,737	--	--	--	--	--	21,050	53	230	32,944			
Pipeline	--	--	1,458	--	--	--	3,834	--	--	--	--	--	2,546	173	0	8,011			
Natural Gas Processing Plant	91	23	114	116	15	937	1,068	453	1,640	230	55	41	2,419	83	43	3,727			
Total	--	--	3,040	--	--	--	17,195	--	--	--	--	--	30,103	413	383	51,134			
Normal Butane																			
Refinery	247	7	254	625	86	247	958	675	418	1,273	5	17	2,388	149	539	4,288			
Bulk Terminal	--	--	509	--	--	--	3,327	--	--	--	--	--	6,466	0	1,180	11,482			
Pipeline	--	--	77	--	--	--	1,027	--	--	--	--	--	636	88	0	1,528			
Natural Gas Processing Plant	52	5	57	53	7	587	647	227	1,045	521	58	15	1,866	25	12	2,607			
Total	--	--	897	--	--	--	5,959	--	--	--	--	--	11,356	262	1,731	20,205			
Isobutane																			
Refinery	59	0	59	244	68	95	407	208	466	556	17	6	1,253	57	97	1,873			
Bulk Terminal	--	--	2	--	--	--	936	--	--	--	--	--	4,033	0	81	5,052			
Pipeline	--	--	0	--	--	--	492	--	--	--	--	--	638	48	0	1,178			
Natural Gas Processing Plant	2	6	8	19	0	156	175	65	717	928	15	5	1,730	7	7	1,927			
Total	--	--	69	--	--	--	2,010	--	--	--	--	--	7,654	112	185	10,030			
Other Hydrocarbons and Alcohol																			
Refinery	10	0	10	141	2	44	187	0	77	98	0	3	178	9	16	400			
Total	--	--	10	--	--	--	187	--	--	--	--	--	178	9	16	400			
Unfinished Oils																			
Refinery	3,862	224	4,086	3,344	110	1,325	4,779	771	7,661	5,241	149	76	13,898	589	4,457	27,809			
Naphtha and Lighter	2,101	162	2,263	1,728	99	320	2,147	688	6,490	1,979	123	2	9,282	390	4,241	18,323			
Kerosene and Light Gas Oils	4,923	283	5,206	2,783	298	1,800	4,881	775	10,714	8,448	404	158	20,499	847	15,240	46,673			
Heavy Gas Oils	1,157	137	1,294	3,097	6	1,177	4,280	511	5,765	4,353	67	0	10,696	366	5,511	22,147			
Residuum	12,043	806	12,849	10,952	513	4,622	16,087	2,745	30,630	20,021	743	236	54,375	2,192	29,449	114,952			
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 30, 1988 (continued)
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico		Total	Rocky Mt.	Dist. V West Coast
Motor Gasoline Blending Components																
Refinery	3,973	73	4,046	4,415	506	1,659	6,580	1,135	6,630	5,950	167	170	14,052	1,616	7,393	33,687
Bulk Terminal	--	--	214	--	--	--	274	--	--	--	--	--	897	3	40	1,428
Pipeline	--	--	29	--	--	--	62	--	--	--	--	--	0	0	0	91
Total	--	--	4,289	--	--	--	6,916	--	--	--	--	--	14,949	1,619	7,433	35,206
Aviation Gasoline Blending Components																
Refinery	0	0	0	87	0	12	99	0	0	56	0	0	56	0	26	181
Total	--	--	0	--	--	--	99	--	--	--	--	--	56	0	26	181
Total Finished Motor Gasoline																
Refinery	7,298	459	7,757	5,104	1,182	2,777	9,063	1,613	11,379	4,721	885	172	18,770	1,872	7,287	44,749
Bulk Terminal	--	--	32,163	--	--	--	23,085	--	--	--	--	--	9,906	1,542	10,470	77,166
Pipeline	--	--	15,154	--	--	--	15,839	--	--	--	--	--	17,704	1,183	1,968	51,848
Total	--	--	55,074	--	--	--	47,987	--	--	--	--	--	46,380	4,597	19,725	173,763
Finished Leaded Motor Gasoline																
Refinery	912	146	1,058	1,137	308	939	2,384	443	2,202	1,175	158	62	4,040	809	2,408	10,699
Bulk Terminal	--	--	6,878	--	--	--	7,020	--	--	--	--	--	3,116	686	3,244	20,944
Pipeline	--	--	2,468	--	--	--	4,384	--	--	--	--	--	3,602	449	395	11,298
Total	--	--	10,404	--	--	--	13,788	--	--	--	--	--	10,758	1,944	6,047	42,941
Finished Unleaded Motor Gasoline																
Refinery	6,386	313	6,699	3,967	874	1,838	6,679	1,170	9,177	3,546	727	110	14,730	1,063	4,879	34,050
Bulk Terminal	--	--	25,285	--	--	--	16,065	--	--	--	--	--	6,790	856	7,226	56,222
Pipeline	--	--	12,686	--	--	--	11,455	--	--	--	--	--	14,102	734	1,573	40,550
Total	--	--	44,670	--	--	--	34,199	--	--	--	--	--	35,622	2,653	13,678	130,822
Finished Aviation Gasoline																
Refinery	64	0	64	77	30	10	117	81	229	72	0	0	382	43	159	765
Bulk Terminal	--	--	269	--	--	--	287	--	--	--	--	--	57	19	251	883
Pipeline	--	--	0	--	--	--	151	--	--	--	--	--	6	0	0	157
Total	--	--	333	--	--	--	555	--	--	--	--	--	445	62	410	1,805

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 30, 1988

Table 24. Stocks of Crude Oil and Petroleum Products by District (Thousand Barrels)																
Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Naphtha-Type Jet Fuel																
Refinery	413	0	413	314	0	197	511	279	489	502	116	73	1,459	228	785	3 396
Bulk Terminal	--	--	1,171	--	--	--	313	--	--	--	--	--	109	17	602	2,212
Pipeline	--	--	42	--	--	--	143	--	--	--	--	--	515	81	361	1,142
Total	--	--	1,626	--	--	--	967	--	--	--	--	--	2,083	326	1,748	6,750
Kerosene-Type Jet Fuel																
Refinery	1,996	22	2,018	1,339	237	428	2,004	452	3,024	2,295	45	41	5,857	382	4,351	14,612
Bulk Terminal	--	--	4,166	--	--	--	2,953	--	--	--	--	--	2,047	190	2,219	11,575
Pipeline	--	--	3,903	--	--	--	2,835	--	--	--	--	--	5,082	165	818	12,803
Total	--	--	10,087	--	--	--	7,792	--	--	--	--	--	12,986	737	7,388	38,990
Kerosene																
Refinery	278	82	360	457	80	241	778	61	787	241	42	0	1,131	46	161	2,476
Bulk Terminal	--	--	1,744	--	--	--	676	--	--	--	--	--	334	29	54	2,837
Pipeline	--	--	186	--	--	--	178	--	--	--	--	--	280	0	6	650
Total	--	--	2,290	--	--	--	1,632	--	--	--	--	--	1,745	75	221	5,963
Distillate Fuel Oils																
Refinery	7,096	410	7,506	5,112	1,601	2,823	9,536	887	9,461	3,801	1,341	99	15,589	1,910	6,196	40 737
Bulk Terminal	--	--	24,423	--	--	--	12,347	--	--	--	--	--	4,265	795	5,226	47,056
Pipeline	--	--	5,918	--	--	--	7,764	--	--	--	--	--	7,409	502	1,269	22,862
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	5	2	0	0	7	0	0	7
Total	--	--	37,847	--	--	--	29,647	--	--	--	--	--	27,270	3,207	12,691	110,662
Residual Fuel Oils																
Refinery	2,119	87	2,206	2,056	361	158	2,575	196	3,401	3,415	123	11	7,146	489	5,420	17,836
Bulk Terminal	--	--	14,156	--	--	--	793	--	--	--	--	--	7,020	0	2,129	24,098
Pipeline	--	--	0	--	--	--	0	--	--	--	--	--	0	0	189	189
Total	--	--	16,362	--	--	--	3,368	--	--	--	--	--	14,166	489	7,738	42,123
Naphtha < 400 Deg. Petro. Feed. Use																
Refinery	438	0	438	276	0	102	378	72	826	282	9	11	1,200	17	117	2 150
Total	438	0	438	276	0	102	378	72	826	282	9	11	1,200	17	117	2 150
Other Oils > 400 Deg. Petro. Feed. Use																
Refinery	4	0	4	6	0	0	6	100	1,646	301	0	0	2,047	2	83	2,142
Total	4	0	4	6	0	0	6	100	1,646	301	0	0	2,047	2	83	2,142

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, June 30, 1988 (continued)

Commodity	PAD District I			PAD District II			PAD District III				PAD District IV		United States		
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	PAD Dist. V West Coast
Special Naphthas															
Refinery	561	41	602	145	0	103	88	1,285	7	207	0	1,587	5	143	2,585
Bulk Terminal	--	--	468	--	--	--	--	--	--	--	--	268	0	34	1,109
Total	--	--	1,070	--	--	--	--	--	--	--	--	1,855	5	177	3,694
Lubricants															
Refinery	260	766	1,026	1,158	0	389	16	4,278	1,581	416	0	6,291	100	1,339	10,303
Bulk Terminal	--	--	1,924	--	--	--	--	--	--	--	--	387	1	614	3,594
Total	--	--	2,950	--	--	--	--	--	--	--	--	6,678	101	1,953	13,897
Waxes															
Refinery	0	66	66	63	0	27	59	241	133	25	0	458	73	112	799
Total	--	--	66	--	--	--	--	--	--	--	--	458	73	112	799
Petroleum Coke															
Refinery	578	0	578	239	1,982	204	10	430	2,670	215	0	3,325	13	1,838	8,179
Total	578	0	578	239	1,982	204	10	430	2,670	215	0	3,325	13	1,838	8,179
Asphalt and Road Oil															
Refinery	2,075	278	2,353	4,221	1,917	1,226	451	839	824	1,398	250	3,762	2,951	1,965	18,395
Bulk Terminal	--	--	3,725	--	--	--	--	--	--	--	--	851	60	312	8,579
Total	--	--	6,078	--	--	--	--	--	--	--	--	4,613	3,011	2,277	26,974
Miscellaneous Products															
Refinery	269	31	300	125	11	13	48	407	215	0	0	670	48	277	1,444
Bulk Terminal	--	--	697	--	--	--	--	--	--	--	--	932	1	34	1,770
Pipeline	--	--	0	--	--	--	--	--	--	--	--	279	0	8	327
Natural Gas Processing Plant	0	0	0	0	0	1	18	0	1	2	0	21	0	0	22
Total	--	--	997	--	--	--	--	--	--	--	--	1,902	49	319	3,563
Total Stocks, All Oils	--	--	174,568	--	--	--	--	--	--	--	--	986,353	30,940	172,724	1,610,627

* Includes 38,395 thousand barrels of domestic crude oil.

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky."

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, June 30, 1988
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	7,936	31,984	2,104	31,929	16,362
Connecticut	441	796	78	1,375	481
Delaware, D.C., Maryland	357	1,460	188	2,071	1,721
Florida	1,183	5,544	217	2,183	1,029
Georgia	878	1,820	62	1,015	233
Maine, New Hampshire, Vermont	218	846	94	1,329	285
Massachusetts	160	1,235	51	1,688	1,180
New Jersey	988	7,579	188	8,865	6,951
New York	672	2,741	155	3,611	1,867
North Carolina	832	1,657	321	1,551	364
Pennsylvania	954	4,084	433	4,246	1,347
Rhode Island	75	503	w	907	w
South Carolina	504	1,182	140	825	w
Virginia	584	2,393	160	2,162	556
West Virginia	90	144	w	101	w
PAD District II Total	9,404	22,744	1,454	21,883	3,368
Illinois	1,820	4,441	280	3,933	1,226
Indiana	1,096	2,675	129	2,680	649
Iowa	483	932	w	1,293	w
Kansas, Nebraska	1,070	1,658	24	2,037	64
Kentucky	545	1,010	67	790	w
Michigan	882	2,695	90	1,606	131
Minnesota	451	1,050	w	2,020	179
Missouri	344	801	w	752	w
North Dakota, South Dakota	176	553	w	746	w
Ohio	717	2,779	459	2,149	349
Oklahoma	766	1,487	w	1,832	160
Tennessee	556	1,455	75	935	215
Wisconsin	498	1,208	w	1,110	164
PAD District III Total	7,156	21,520	1,465	19,854	14,166
Alabama	511	1,079	55	685	774
Arkansas	251	327	w	211	w
Louisiana	1,177	4,056	281	3,887	5,880
Mississippi	698	1,649	15	1,993	w
New Mexico	195	299	w	309	11
Texas	4,324	14,110	1,110	12,769	7,262
PAD District IV Total	1,495	1,919	75	2,705	489
Colorado	331	582	w	407	w
Idaho	131	196	w	228	w
Montana	498	552	w	834	78
Utah	190	215	w	484	123
Wyoming	345	374	w	752	w
PAD District V Total	5,652	12,105	215	11,422	7,549
Alaska	193	457	w	1,200	w
Arizona	287	484	w	174	w
California	3,130	7,954	126	6,228	4,709
Hawaii	79	571	w	555	w
Nevada	81	174	w	151	w
Oregon	559	706	w	906	324
Washington	1,323	1,759	w	2,208	1,272
U.S. Total	31,643	90,272	5,313	87,793	41,934

w = Withheld to avoid disclosure of individual company data.
Sources and estimation procedures: See Explanatory Notes 1 and 2

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, June 1988
(Thousand Barrels)

Commodity	From I to					From II to					From III to					From IV to					From V to				
	II		III		V	I	III	IV	V	I	II	IV	V	I	II	III	V	I	II	III	IV				
Crude Oil	0	0	0	0	0	0	2,489	767	0	460	47,710	0	0	5,492	2,830	0	2,362	0	15,049	0	0				
Petroleum Products	7,122	364	0	0	0	3,306	6,899	1,765	0	74,554	23,990	0	1,793	1,330	1,561	1,411	0	0	10	0	0				
Pentanes Plus	0	0	0	0	0	0	168	0	0	0	695	0	0	0	70	152	0	0	0	0	0				
Liquefied Petroleum Gases	0	0	0	0	0	577	4,411	18	0	1,149	3,649	0	0	539	1,409	0	0	0	0	0	0				
Unfinished Oils	0	0	0	0	0	0	0	0	0	162	0	0	0	0	0	0	0	0	0	0	0				
Blending Components																									
Motor Gasoline	10	108	0	0	0	90	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0				
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Finished Motor Gasoline	4,892	0	0	0	0	1,656	1,142	996	0	44,543	11,510	0	931	504	0	0	0	0	0	0	0				
Finished Leaded Motor Gasoline	1,169	0	0	0	0	178	289	220	0	6,943	2,821	0	243	194	0	459	0	0	0	0	0				
Finished Unleaded Motor Gasoline	3,723	0	0	0	0	1,478	853	776	0	37,600	8,689	0	688	310	0	533	0	0	0	0	0				
Finished Aviation Gasoline	13	0	0	0	0	0	0	18	0	198	152	0	0	0	0	0	0	0	0	0	0				
Naphtha-Type Jet Fuel	0	0	0	0	0	0	86	0	0	667	8	0	295	25	0	110	0	0	0	0	0				
Kerosene-Type Jet Fuel	219	0	0	0	0	230	248	513	0	9,144	2,556	0	156	3	0	42	0	0	0	0	0				
Kerosene	1	0	0	0	0	0	100	0	0	44	16	0	0	0	0	0	0	0	0	0	0				
Distillate Fuel Oil	1,942	0	0	0	0	397	527	220	0	15,901	4,416	0	411	189	0	267	0	0	0	0	0				
Residual Fuel Oil	13	0	0	0	0	0	171	0	0	678	0	0	0	0	0	0	0	0	0	0	0				
Petrochemical Feedstocks¹	32	9	0	0	0	75	17	0	0	0	68	0	0	0	0	0	0	0	0	0	0				
Special Naphthas	0	4	0	0	0	0	0	0	0	422	184	0	0	0	0	0	0	0	0	0	0				
Lubricants	0	83	0	0	0	99	29	0	0	899	451	0	0	0	0	0	0	0	0	10	0				
Waxes	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0				
Asphalt and Road Oil	0	130	0	0	0	182	0	0	0	617	284	0	0	0	0	0	0	0	0	0	0				
Miscellaneous Products	0	30	0	0	0	0	0	0	0	64	1	0	0	0	0	0	0	0	0	0	0				
Total	7,122	364	0	0	0	3,306	9,388	2,532	0	75,014	71,700	0	1,793	6,822	4,391	1,411	2,362	0	15,059	0	0				

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 27. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, June 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	III	IV
Crude Oil	0	0	0	0	2,489	767	0	47,710	0	0	5,492	2,830	0	3,199	0
Petroleum Products	7,022	0	1,942	6,561	1,765	59,412	20,160	0	1,793	1,330	1,561	1,411	0	0	0
Pentanes Plus	0	0	0	168	0	0	695	0	0	70	152	0	0	0	0
Liquefied Petroleum Gases	0	0	577	4,411	18	961	3,649	0	0	539	1,409	0	0	0	0
Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,892	0	1,052	1,142	996	36,945	9,657	0	931	504	0	992	0	0	0
Finished Leaded Motor Gasoline	1,169	0	114	289	220	5,946	2,415	0	243	194	0	459	0	0	0
Finished Unleaded Motor Gasoline	3,723	0	938	853	776	30,999	7,242	0	688	310	0	533	0	0	0
Finished Aviation Gasoline	13	0	0	0	18	63	138	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	86	0	254	8	0	295	25	0	110	0	0	0
Kerosene-Type Jet Fuel	219	0	158	127	513	7,528	2,304	0	156	3	0	42	0	0	0
Kerosene	1	0	0	100	0	19	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,897	0	65	527	220	13,642	3,709	0	411	189	0	267	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7,022	0	1,942	9,050	2,532	59,412	67,870	0	1,793	6,822	4,391	1,411	3,199	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 28. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, June 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From V to		
	II	III	V	I	III	V	New England	Central Atlantic	Lower Atlantic	II	V	III
Crude Oil	0	0	0	0	0	0	460	0	460	0	0	11,850
Petroleum Products	100	364	0	1,364	338	0	15,142	0	2,343	3,830	0	0
Liquefied Petroleum Gases	0	0	0	0	0	0	188	0	188	0	0	0
Unfinished Oils	0	0	0	0	0	0	162	0	102	0	0	0
Motor Gasoline Blending Components	10	108	0	0	0	0	63	0	0	0	0	0
Finished Motor Gasoline	0	0	0	604	0	0	7,598	0	7,352	1,853	0	0
Finished Leaded Motor Gasoline	0	0	0	64	0	0	997	0	997	406	0	0
Finished Unleaded Motor Gasoline	0	0	0	540	0	0	6,601	0	6,355	1,447	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	135	0	79	14	0	0
Naphtha-Type Jet Fuel	0	0	0	72	121	0	413	0	413	252	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	1,616	0	1,368	252	0	0
Kerosene	45	0	0	332	0	0	25	0	25	16	0	0
Distillate Fuel Oil	13	0	0	0	171	0	2,259	0	1,506	707	0	0
Residual Fuel Oil	32	9	0	75	17	0	678	0	253	68	0	0
Petrochemical Feedstocks ¹	0	4	0	0	0	0	422	0	332	184	0	0
Special Naphthas	0	83	0	99	29	0	899	0	559	451	0	10
Lubricants	0	0	0	0	0	0	3	0	0	0	0	0
Waxes	0	0	0	182	0	0	617	0	586	284	0	0
Asphalt and Road Oil	0	130	0	0	0	0	64	0	36	1	0	0
Miscellaneous Products	0	30	0	0	0	0	0	0	0	0	0	0
Total	100	364	0	1,364	338	0	15,602	0	12,799	3,830	0	11,850

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, June 1988
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil	2,822	0	2,822	53,202	3,256	49,946	20,368	48,170	-27,802	767	8,322	-7,555	0	17,411	-17,411
Petroleum Products	77,860	7,486	70,374	32,442	11,970	20,472	8,834	100,337	-91,503	1,765	4,302	-2,537	3,204	10	3,194
Pentanes Plus	0	0	0	765	168	597	320	695	-375	0	222	-222	0	0	0
Liquefied Petroleum Gases	1,726	0	1,726	4,188	5,006	-818	5,820	4,798	1,022	18	1,948	-1,930	0	0	0
Unfinished Oils	162	0	162	0	0	0	0	162	-162	0	0	0	0	0	0
Blending Components															
Motor Gasoline	153	118	35	10	90	-80	108	63	45	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	46,199	4,892	41,307	16,906	3,794	13,112	1,142	56,984	-55,842	996	1,496	-500	1,923	0	1,923
Finished Leaded Motor Gasoline	7,121	1,169	5,952	4,184	687	3,497	289	10,007	-9,718	220	653	-433	702	0	702
Finished Unleaded Motor Gasoline	39,078	3,723	35,355	12,722	3,107	9,615	853	46,977	-46,124	776	843	-67	1,221	0	1,221
Finished Aviation Gasoline	198	13	185	165	18	147	0	350	-350	18	0	0	0	0	0
Naphtha-Type Jet Fuel	667	0	667	33	86	-53	86	970	-884	0	135	-135	405	0	405
Kerosene-Type Jet Fuel	9,374	219	9,155	2,778	991	1,787	248	11,856	-11,608	513	45	468	198	0	198
Kerosene	44	1	43	17	100	-83	100	60	40	0	0	0	0	0	0
Distillate Fuel Oil	16,298	1,942	14,356	6,547	1,144	5,403	527	20,728	-20,201	220	456	-236	678	0	678
Residual Fuel Oil	678	13	665	13	171	-158	171	678	-507	0	0	0	0	0	0
Petrochemical Feedstocks ¹	75	41	34	100	92	8	26	68	-42	0	0	0	0	0	0
Special Naphthas	422	4	418	184	0	184	4	606	-602	0	0	0	0	0	0
Lubricants	998	83	915	451	128	323	122	1,350	-1,228	0	0	0	0	10	-10
Waxes	3	0	3	0	0	0	0	3	-3	0	0	0	0	0	0
Asphalt and Road Oil	799	130	669	284	182	102	130	901	-771	0	0	0	0	0	0
Miscellaneous Products	64	30	34	1	0	1	30	65	-35	0	0	0	0	0	0
Total	80,682	7,486	73,196	85,644	15,226	70,418	29,202	148,507	-119,305	2,532	12,624	-10,092	3,204	17,421	-14,217

¹ Includes naphtha less than 400 degrees F endpoint and other oils equal to or greater than 400 degrees F endpoint.
Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 30. Production of Residual Fuel Oil by Sulfur Content by PAD District, June, 1988
(Thousand Barrels)

Commodity	PAD District I		PAD District II				PAD District III				PAD District IV		United States
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	PAD Dist. V West Coast
Residual Fuel Oil	3,766	62	3,828	1,478	255	122	1,855	416	5,011	4,432	271	13	10,311
0.00 to 0.30% Sulfur	937	10	947	37	0	0	37	78	0	699	73	5	2,828
0.31 to 1.00% Sulfur	2,207	0	2,207	227	0	66	293	259	695	553	140	8	5,180
Greater Than 1.00% Sulfur	622	52	674	1,214	255	56	1,525	79	4,316	3,180	58	0	8,370
													18,415

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content by PAD District, June 30, 1988
(Thousand Barrels)

Commodity	PAD District I		PAD District II				PAD District III				PAD District IV		United States
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	PAD Dist. V West Coast
Residual Fuel Oil -- 0.00 to 0.30% Sulfur													
Refinery	507	59	566	28	0	0	28	19	0	1,116	3	6	669
Bulk Terminal	--	--	3,182	--	--	--	113	--	--	--	--	--	3,691
Total	--	--	3,748	--	--	--	141	--	--	--	--	--	6,173
Residual Fuel Oil -- 0.31 to 1.00% Sulfur													
Refinery	1,034	0	1,034	389	0	57	446	63	620	177	79	5	729
Bulk Terminal	--	--	5,122	--	--	--	314	--	--	--	--	--	3,262
Total	--	--	6,156	--	--	--	760	--	--	--	--	--	12,555
Residual Fuel Oil -- Greater than 1.00% Sulfur													
Refinery	578	28	606	1,639	361	101	2,101	114	2,781	2,122	41	0	4,022
Bulk Terminal	--	--	5,852	--	--	--	366	--	--	--	--	--	1,812
Total	--	--	6,458	--	--	--	2,467	--	--	--	--	--	5,834
													23,206

* Effective January 1987 "Appalachian No. 2" is combined with "Ind., Ill., Ky." Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 32. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, by Sulfur Content, June 1988
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From V to		
	II	III	V	I	III	V	I	New England	Central Atlantic	Lower Atlantic	II	III
Residual Fuel Oil	13	0	0	0	0	171	0	678	0	425	253	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0
Greater Than 1.00% Sulfur	13	0	0	0	171	0	678	0	425	253	0	0

Sources and estimation procedures: See Explanatory Notes 1 and 2.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, June 1988
(Thousand Barrels)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Arab OPEC				
Algeria	1,065	0	0	1,065
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Neutral Zone	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	1,065	0	0	1,065
Other OPEC				
Ecuador	359	0	179	538
Gabon	0	0	0	0
Indonesia	0	0	0	0
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	270	0	641	911
Subtotal Other OPEC	629	0	820	1,449
Other				
Angola	322	0	0	322
Australia	0	0	0	0
Bahamas	0	299	453	752
Bolivia	0	0	0	0
Brazil	626	0	0	626
Brunei	0	0	0	0
Canada	568	267	253	1,088
China, People's Republic	0	0	0	0
Congo	0	0	0	0
Egypt	0	0	0	0
France	0	0	304	304
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	4	0	4
Netherlands	234	0	0	234
Netherlands Antilles	0	0	580	580
Norway	0	0	0	0
Oman	0	0	0	0
Peru	93	0	0	93
Puerto Rico	0	0	0	0
Romania	0	0	230	230
Spain	0	0	231	231
Syria	0	0	0	0
Tunisia	0	0	960	960
Trinidad	0	0	0	0
United Kingdom	0	171	0	171
Virgin Islands	232	409	501	1,142
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	62	0	39	101

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, June 1988 (continued)
(Thousand Barrels)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Other Eastern Hemisphere	55	865	210	1,130
Subtotal Other	2,192	2,015	3,761	7,968
Total Imports	3,886	2,015	4,581	10,482

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2

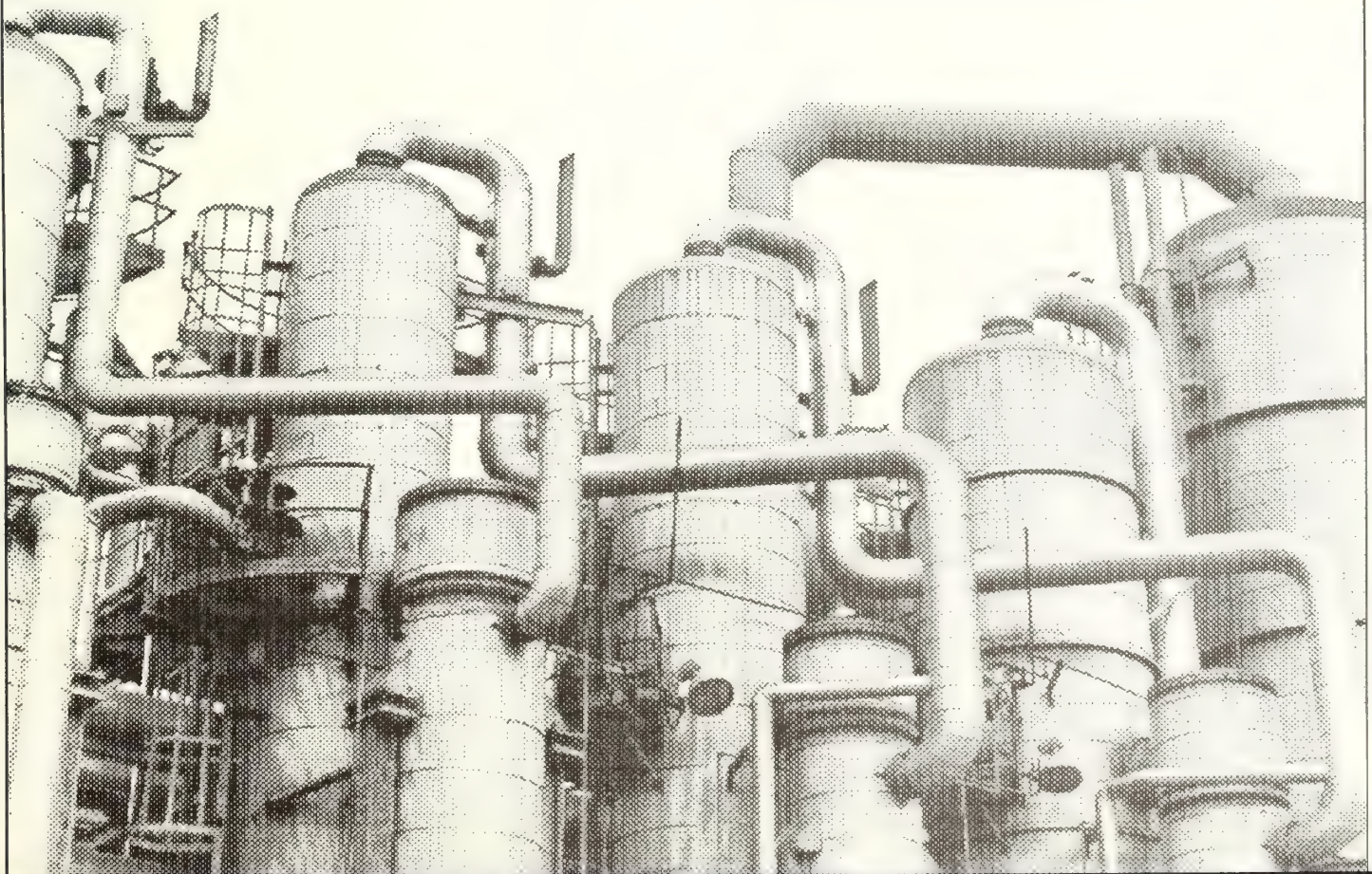
Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, June 1988
(Thousand Barrels)

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	2,911	1,560	4,296	8,767
Connecticut	0	299	0	299
Florida	0	179	516	695
Georgia	0	0	185	185
Maine	0	0	115	115
Maryland	247	230	600	1,077
Massachusetts	0	279	846	1,125
New Jersey	868	228	371	1,467
New York	1,796	345	491	2,632
North Carolina	0	0	279	279
Pennsylvania	0	0	441	441
Vermont	0	0	10	10
Virginia	0	0	442	442
PAD District II	78	0	35	113
Michigan	78	0	0	78
North Dakota	0	0	35	35
PAD District III	897	252	250	1,399
Alabama	0	0	250	250
Texas	897	252	0	1,149
PAD District V	0	203	0	203
California	0	4	0	4
Hawaii	0	160	0	160
Washington	0	39	0	39
All PAD Districts	3,886	2,015	4,581	10,482

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1 and 2

Appendix A

District Descriptions and Maps



Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

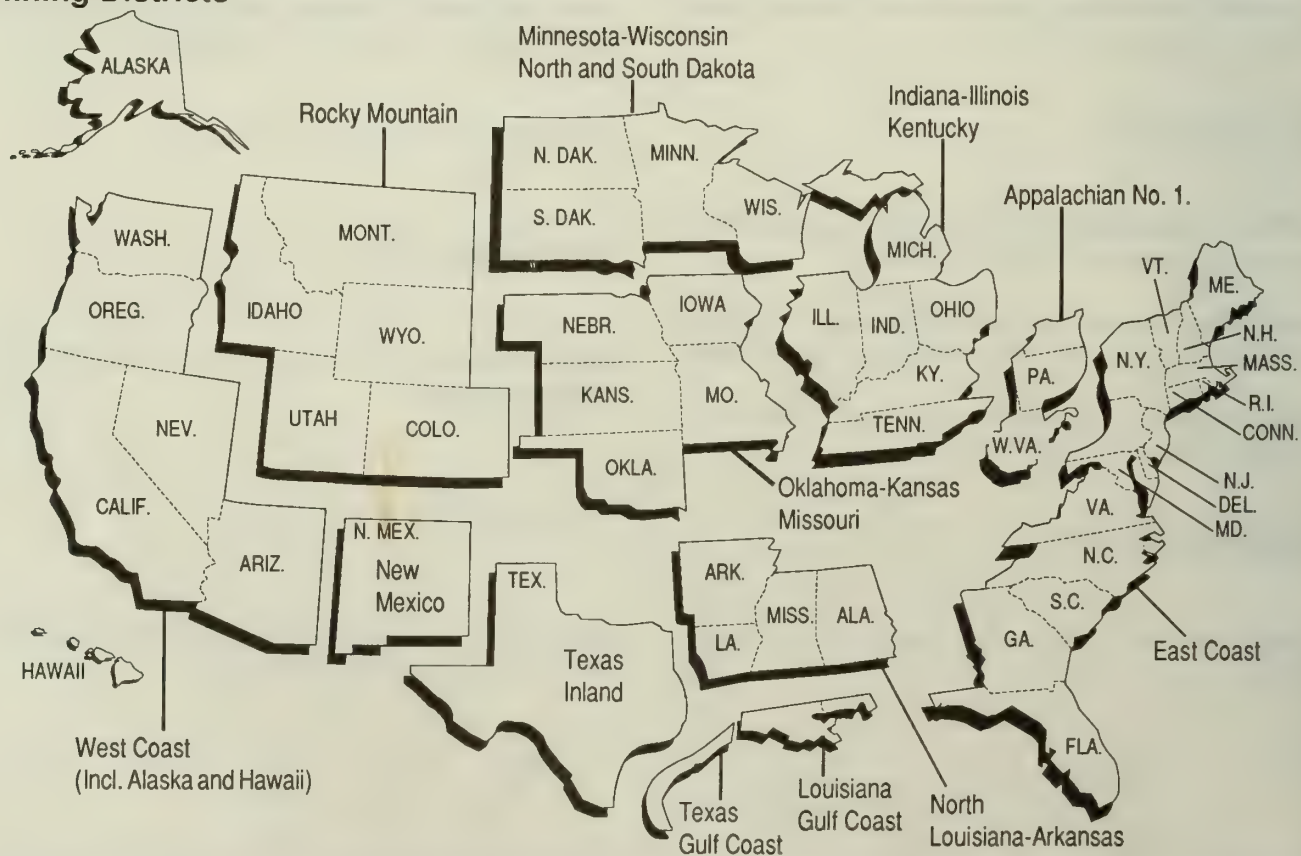
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

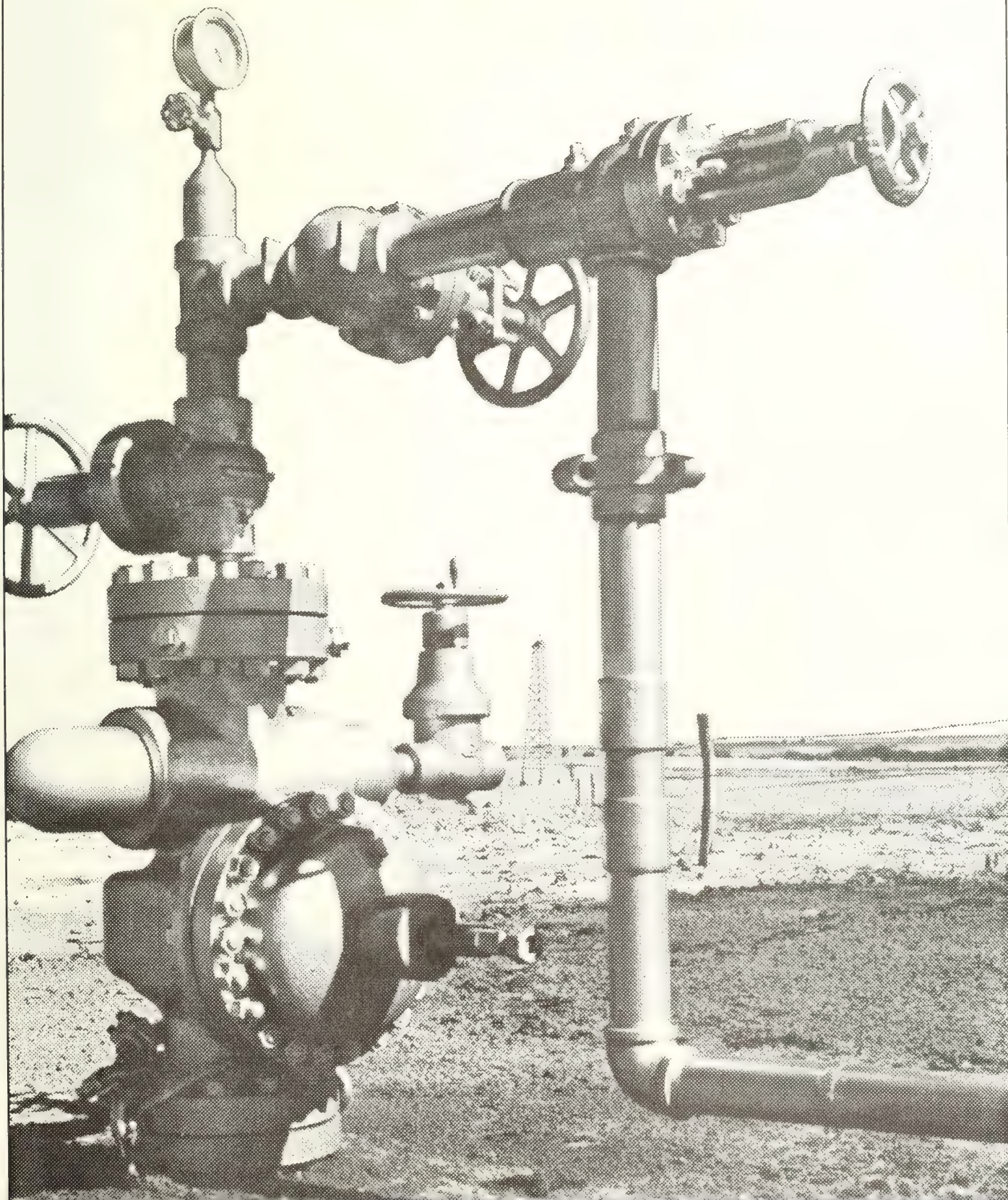


Refining Districts



Appendix B

Explanatory Notes



Appendix B

Explanatory Notes

Note 1: Data Collection Methodology

Background

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	Weekly Refinery Report
EIA-801	Weekly Bulk Terminal Report
EIA-802	Weekly Product Pipeline Report
EIA-803	Weekly Crude Oil Stocks Report
EIA-804	Weekly Imports Report
EIA-810	Monthly Refinery Report
EIA-811	Monthly Bulk Terminal Report
EIA-812	Monthly Product Pipeline Report
EIA-813	Monthly Crude Oil Report
EIA-814	Monthly Imports Report
EIA-816	Monthly Natural Gas Liquids Report
EIA-817	Monthly Tanker and Barge Movement Report
EIA-820	Annual Refinery Report

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect weekly data on basic refinery operations and on crude oil and major petroleum products stocks and imports. Data from the WPSRS are published in the *Weekly Petroleum Status Report* (WPSR) and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (PSM). A description of the WPSRS survey forms follows in Explanatory Note 1.1.

Forms EIA-810 through 814, 816, and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. These surveys are the primary source of data for the

"Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Explanatory Note 1.2.

Data are also obtained on magnetic tape from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Explanatory Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 using data from an external source. Estimates from the EIA's weekly sample surveys (inaugurated in April 1979) replaced the estimates from the external source for all but the imports series in January 1980, and replaced the imports estimates in June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports all shipments entering the United States. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe which includes all petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. The selected sample size is 153.

EIA-801: Based on the EIA-811 universe which includes every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. The selected sample size is 70.

EIA-802: Based on the EIA-812 universe which includes all product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. The selected sample size is 43.

EIA-803: Based on the EIA-813 universe which includes companies that carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. The selected sample size is 79.

EIA-804: Based on the EIA-814 universe which covers each company, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The selected sample size is 83.

Sampling Method

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period begins and ends each Friday at 7 a.m. All canvassed firms must file reports by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month, (M_t), is divided by the amount reported by the sample of companies for the most recent month, (M_s). The result is multiplied by the amount reported by the sample of companies for the current week, (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly refinery inputs and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratios multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for selected products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rate

The response rate for the published estimates is usually between 97 and 100 percent of the sampled respondents.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other

survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and blending plants located in the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 260 respondents report on the EIA-810.

EIA-811: Every bulk terminal operating in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 320 respondents report on the EIA-811.

EIA-812: All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the EIA-812.

EIA-813: All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 180 respondents report on the EIA-813.

EIA-814: All companies, including subsidiary or affiliated companies, that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. Approximately 1,500 respondents report on the EIA-814.

EIA-816: All facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 1,050 respondents report on the EIA-816.

EIA-817: All companies that have custody of crude oil or petroleum products transported by tanker or barge between

PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 50 respondents report on the EIA-817.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Every three years an extensive survey is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, Federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month, with the exception of the EIA-814 which is due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed for companies that do not respond to EIA Forms 810-813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the EIA-814 and 817 are not imputed.

Response Rate

The response rate is generally 99 to 100 percent by the time the data are first published. Nonrespondents are contacted in

writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data tapes are the only source of export statistics and are used to augment the import data collected by the EIA.

Import Statistics (IM-145)

Coverage

Census import statistics used in the PSM reflect both government and nongovernment imports of merchandise from foreign countries and U.S. possessions into the United States (the 50 States and the District of Columbia) without regard to whether or not a commercial transaction is involved. The following types of transactions are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Census export statistics used in the PSM reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

1. Merchandise shipped in-transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
2. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census. Exporters are required to file export documents with Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey descriptions and other details, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form EIA-814, *Monthly Imports Report*. In addition, imports of NGL's are obtained from the Census Bureau Tabulation IM-145. The Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. Additional data taken from the IM-145 are relatively small quantities of naphtha-type and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the Form EIA-814 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks. A negative result (-) would represent a buildup of stocks. For a description of survey forms used to make stock withdrawal or addition calculations, see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports, and stock withdrawals. Crude oil disposition is the sum of exports, refinery input, losses, stock additions, and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supply from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data on crude oil production for States are reported to EIA by State conservation agencies. Data on the volume of oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. All except five of the producing States report data monthly. These States are Michigan, New York, Ohio, Pennsylvania, and Virginia. Estimates of monthly production for these States are made using methodologies explained in the next paragraph. Reported and estimated monthly production volumes are updated as new data are received by EIA. After the end of each calendar year, the monthly numbers are updated further using the annual reports of the State conservation agencies and the Minerals Management Service.

Table 11 of this publication provides information on crude oil production for the most recent month for which State values are available. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly State crude oil production data become available. In order to present more timely crude oil production values, the Energy Information Administration prepares a forecast estimate on the first day of the reference month and revised estimates approximately 75 days later which are based on historical production patterns and are summed to obtain national and Petroleum Administration for Defense District (PADD) level crude oil production values. The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. The forecast estimates are published in the *Weekly Petroleum Status Report* and are also used to calculate the preliminary estimates in the "Summary Statistics" section of the *Petroleum Supply Monthly*.

These forecast estimates are then replaced by the revised estimates in the next issue of the *Petroleum Supply Monthly*.

Table B1 is intended to provide further insight into EIA's estimates of monthly U.S. crude oil production. It shows (a) how the aggregate reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month as of the most recent "Date of Data Availability;" and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *Petroleum Supply Monthly* Tables S1 and S2 until replaced by the final estimate.

- The initial estimate based upon data collected on Form EIA-182, *Domestic Crude Oil First Purchase Report*, is used in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the reference month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available 74 days

after the reference month and includes imputation as needed. A final revision is published concurrent with publication of EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is used in the *Petroleum Supply Annual*.

Table B1. U.S. Crude Oil¹ Production Estimates and Reported State² Data by Month
(Thousand Barrels per Day)

Date of Data Availability	Month of Production																	
	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88	8-88
Reported State Data ³																		
4-14-87	0																	
5-14-87	2033	0																
6-14-87	4813	2057	0															
7-14-87	7579	4618	2068	0														
8-14-87	7667	7615	4654	2012	0													
9-14-87	8152	8110	7218	4665	1999	0												
10-14-87	8356	8288	8210	7672	4264	1997	0											
11-14-87	8356	8412	8211	8139	7276	2971	1945	0										
12-14-87	8369	8411	8255	8140	7752	7724	5008	2088	0									
1-14-88	8369	8412	8255	8179	7756	7731	7252	4866	2152	0								
2-14-88	8370	8412	8256	8191	8095	8034	8039	7703	5296	2127	0							
3-14-88	8370	8412	8256	8191	8095	8071	8039	8190	8205	3208	2086	0						
4-14-88	8342	8377	8218	8157	8133	8093	8090	8249	8286	8204	5111	2161	0					
5-14-88	8464	8498	8336	8279	8251	8210	8205	8365	8401	8318	7156	5743	2151	0				
6-14-88	8464	8498	8336	8279	8251	8210	8206	8365	8403	8318	8086	8103	5767	2095	0			
7-14-88	8464	8498	8336	8279	8251	8210	8206	8365	8403	8319	8079	8183	7270	2686	2087	0		
8-14-88	8467	8500	8341	8282	8256	8212	8217	8379	8411	8330	8134	8198	8142	7188	4859	2051	0	0
Producing States Without Reported Monthly Production ⁴																		
8-14-88	0	0	0	0	0	0	0	0	0	0	5	6	7	9	16	30	33	33
Month of Production																		
Type of Estimate	3-87	4-87	5-87	6-87	7-87	8-87	9-87	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88	8-88
Production Estimate																		
Original ⁵	8336	8361	8296	8303	8287	8204	8162	8281	8283	8348	8395	8353	8306	8269	8240	8210	8189	8128
Interim ⁶	8349	8426	8305	8263	8242	8190	8190	8293	8330	8340	8245	8376	8347	8268	8203	8158		
Form EIA-182																		
Initial	8214	8287	8149	8168	8078	8022	8110	8151	8162	8144	8017	8239	8138	8106	8009	8045		
Revised	8266	8306	8161	8178	8082	8032	8084	8153	8173	8180	8048	8206	8134	8099	8015			
Final ⁷	8464	8498	8336	8279	8251	8210	8205	8364	8397	8318								

¹ Includes lease condensate.

² Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

³ Includes EIA prorated monthly production in 1987 (annual average of 115 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

⁴ Michigan monthly production data (averaging roughly 65,000 barrels per day) from January through June 1987, reported in prior months, was excluded from the data reported as of 4-14-88. Michigan, New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1987 after their annual reports were received. These data were first reported as of 5-14-88.

⁵ Original estimates were made on the first of each month.

⁶ Interim estimates were made 44 days after the end of the production month.

⁷ Published in the *Petroleum Supply Annual* 1987 DOE/EIA 0340(87)/2.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries reported for all refineries on Form EIA-810, *Monthly Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, and the Virgin Islands, which are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Product supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production net having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in-transit is also included. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers. For survey descriptions and other details, see Explanatory Note 1.2.

Note 6: Average Stock Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, residual oil, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels are described below.

The graphs displaying inventory levels of crude oil and petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the report inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases, were derived using monthly data from 1979-1985.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the *average range* is twice the standard deviation.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other details, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the "Summary Statistics" section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition. statistics on the referenced line appear in Table 1 of the "Detailed Statistics," except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Gross Imports Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted for Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- Crude Losses and Product Supplied appear as labeled in Table 4.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.
- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, ethylene, propane, propylene, butane, butylene, and isobutane. The statistics on the referenced line appear in Table 4 of the "Detailed Statistics," except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases. The statistics on the referenced line are aggregated from Table 4 of the "Detailed Statistics," except where noted.

- Total production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.
- Line (5): *SPR Imports* are reported on survey Form EIA-814.
- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude oil losses minus crude oil product supplied in Table 2.
- Line (14): Natural Gas Plant Liquids (NGPL) *Field Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.
- Line (15): NGPL *Net Imports* equals the sum of the imports of pentanes plus minus the exports of pentanes plus in Table 2.
- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the stock withdrawal (+) or addition (-) of pentanes plus in Table 2.
- Line (17): *Total NGPL Supply* equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids *Stock Withdrawal (+) or Addition (-)* equals the aggregate stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components in Table 2.
- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.
- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).
- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of natural gas

liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus field production of other liquids; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.
- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.
- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).
- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of natural gas liquids and LRG and finished petroleum products; plus imports of pentanes plus; plus stock withdrawal (+) or addition (-) of pentanes plus; plus stock withdrawal (+) or addition (-) of other liquids; plus imports of other liquids; plus total field production of other liquids; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.
- Line (29): *Refined Products Stock Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.
- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.
- Lines (31) through (34): Equal the respective products supplied in Table 2.
- Line (35): *Other Products Supplied* equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, naphtha <400 Deg. F. for petrochemical feedstock use, other oils >400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products supplied in Table 2.
- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.
- The sum of lines (38) and (39): *Stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by

the *Strategic Petroleum Reserve* equals ending stocks of crude oil in Table 2.

- Line (43): *Stocks of Finished Refined Products* equals the sum of liquefied petroleum gases and finished petroleum products stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1,462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock withdrawal calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the "Summary Statistics," is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the "Summary Statistics." This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108.
- Other Petroleum Products: 1983 - 248.

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1981 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA

and API estimates of "recast" motor gasoline product supplied.

EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ¹
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

¹ FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied (Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,83
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: Natural Gas Liquids Reporting Changes

Beginning in January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record-keeping practices used by the industry. The following table shows the product category under the new and old basis. Four PSRS surveys were modified beginning in January 1984. They were:

- EIA-810 *Monthly Refinery Report*
- EIA-811 *Monthly Bulk Terminal Report*
- EIA-812 *Monthly Product Pipeline Report*
- EIA-816 *Monthly Natural Gas Liquids Report*

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Adjustments are applied to NGL imports data to make them consistent with the revised reporting system (See Explanatory Note 14).

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
1979-1983 Product Basis					
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Note 14: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquids (NGL) supply data, moving from a nine-product slate basis to a five-component slate basis that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first six months of 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in the following table are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by

Table B5. Algorithm for Allocating NGL Imports/Exports (Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline An Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15: Addition of Crude Oil Pipeline Movements Data

Beginning in January 1985, inter-PAD District pipeline movements of crude oil were included in the PSM. Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the PSM that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6-10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products." 1985 crude oil imports and unfinished oil imports in Tables 6 through 10 are now reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts." A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts." The crude oil line includes net movements by pipeline as well as by tanker and barge.

Note 16: 1986 Changes in Petroleum Industry Reporting

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks ¹ (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGL's & LRG's	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

¹ Stocks as of December 31, 1985.

Also, beginning in January 1986, a major integrated petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities have been combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which will show a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes have been made to tables in the PSM either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes are:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
 - Alaskan crude oil receipts are now shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
 - The "petrochemical feedstock use" and "other use" are no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
 - Imports of unfinished oils are now separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" are shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely and consistent energy information.

Changes in Data Collection and Reporting Systems

- Fresh feed input to catalytic cracking units, hydrocracking units and cokers were added to the Form EIA-810, *Monthly Refinery Report*.

Changes in Publications

- The "Appalachian No. 2" Refining District has been combined with the "Indiana, Illinois, Kentucky," Refining District. This affects PSM Tables 12-15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units and cokers are included in Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during

1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all Foreign Trade Zone facilities located within the 50 United States are considered domestic entities and are included in statistics in the PSM. The principal differences in the PSM data series are about a 1 percent increase in crude oil imports and a 3 percent decrease in product imports.

Appendix C

Impact of
Resubmissions
on Major
Series, 1988

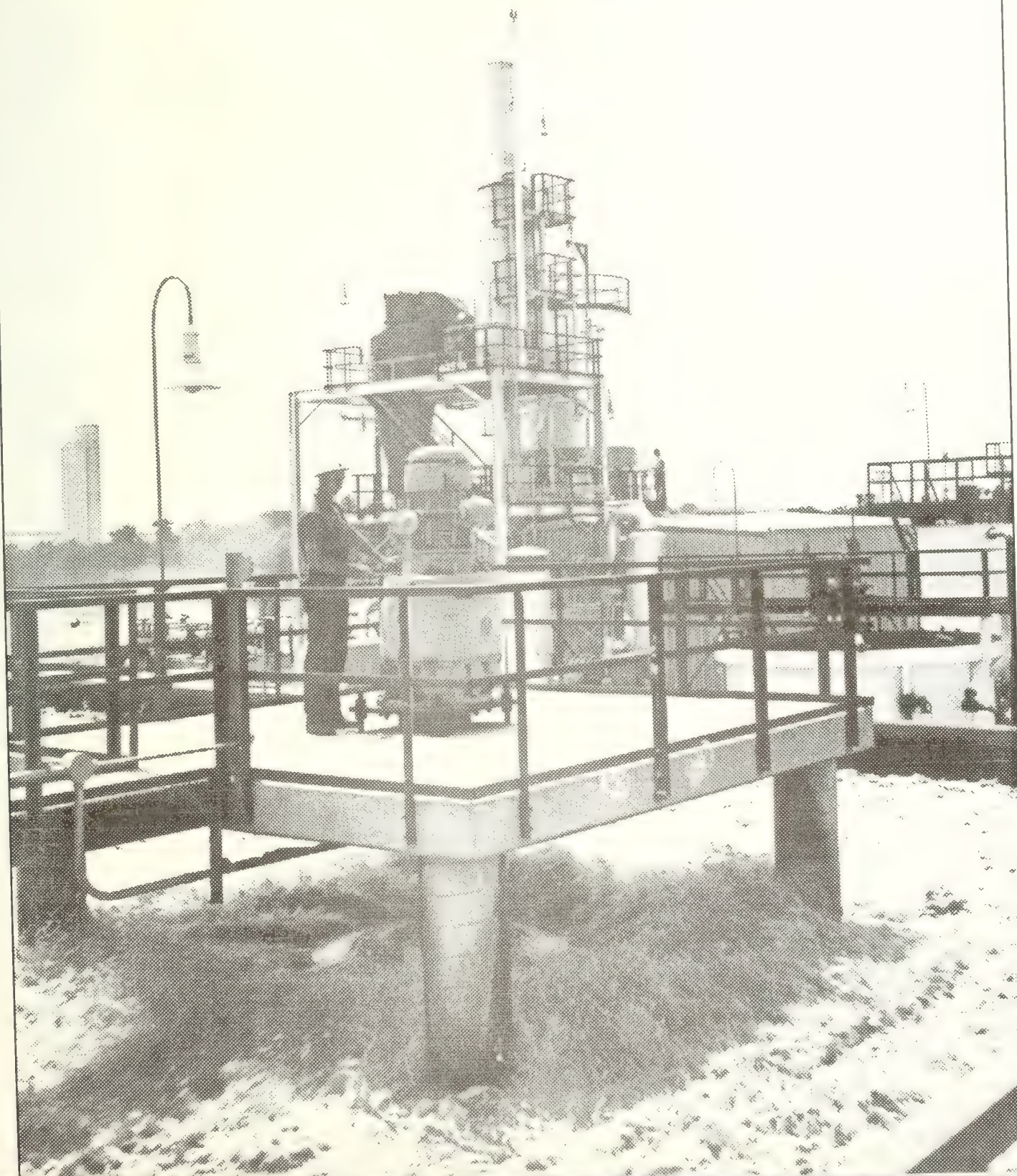


Table C1. Impact of Resubmissions on Major Series, 1988
(Thousand Barrels per Day, Except Where Noted)

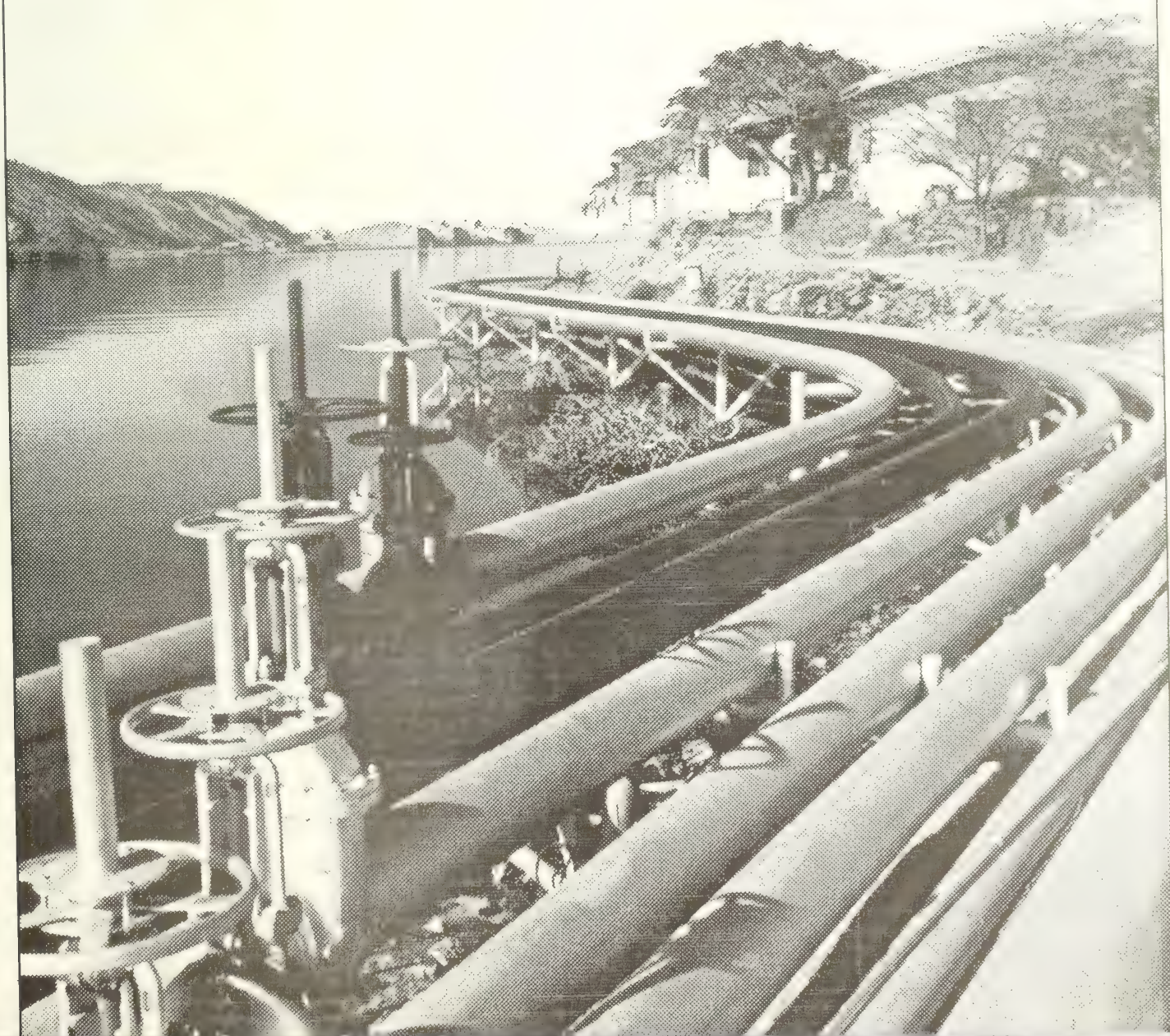
Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs													
Crude Oil	12,975	(s)	12,715	-20	13,072	8	13,167	0					-3
LPG's	366	8	336	6	266	2	256	0					(s)
Production													
LPG's	1,723	2	1,757	7	1,802	9	1,796	7					6
Finished Motor Gasoline	6,723	7	6,736	(s)	6,695	20	6,906	0					6
Naphtha-Type Jet Fuel	184	(s)	178	(s)	209	2	203	0					0
Kerosene-Type Jet Fuel	1,231	1	1,205	1	1,243	0	1,088	0					(s)
Kerosene	104	0	118	(s)	68	(s)	50	0					(s)
Distillate Fuel Oil	3,008	(s)	2,683	-9	2,720	-10	2,869	0					-4
Residual Fuel Oil	1,009	(s)	997	-6	944	(s)	951	-3					-1
Imports													
Crude Oil	4,619	50	4,692	27	4,788	96	5,126	10					45
Finished Motor Gasoline	324	0	365	(s)	318	0	349	0					(s)
Naphtha-Type Jet Fuel	3	0	3	0	2	0	3	0					0
Kerosene-Type Jet Fuel	80	0	64	4	95	0	83	-2					(s)
Distillate Fuel Oil	355	(s)	330	8	243	-2	208	(s)					1
Residual Fuel Oil	737	22	792	30	610	14	465	9					18
Other Products	556	3	503	2	506	14	611	11					7
Stocks (Thousand Barrels)													
Crude Oil	345,479	133	347,835	123	353,625	131	357,131	17					101
Unfinished Oils	95,338	0	97,786	41	102,134	4	102,847	0					11
LPG's	80,741	-1,303	70,191	115	68,808	98	79,671	15					-268
Total Motor Gasoline	239,464	365	240,661	-183	231,258	-22	225,956	0					40
Naphtha-Type Jet Fuel	8,366	-170	6,731	-131	7,156	14	6,713	0					-71
Kerosene-Type Jet Fuel	37,912	84	36,889	68	39,548	49	39,270	42					60
Distillate Fuel Oil	127,155	433	109,640	237	89,312	-108	94,290	4					141
Residual Fuel Oil	46,628	-56	45,465	-63	44,057	4	43,245	-77					-48
Product Supplied													
LPG's	2,069	52	1,982	-50	1,710	8	1,339	9					4
Finished Motor Gasoline	6,679	-5	7,004	17	7,265	16	7,384	(s)					7
Naphtha-Type Jet Fuel	173	6	237	-1	197	-3	221	(s)					0
Kerosene-Type Jet Fuel	1,360	-2	1,270	5	1,200	1	1,167	-2					(s)
Distillate Fuel Oil	3,517	-14	3,511	6	3,544	(s)	2,870	-4					-2
Residual Fuel Oil	1,578	24	1,601	25	1,434	11	1,272	9					17
Major Products Supplied	15,376	62	15,605	2	15,350	33	14,253	13					27

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.
(s) = Less than 500 barrels per day.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Glossary



Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}-(\text{CH})_n-\text{OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr.} 60^\circ \text{F} / 60^\circ \text{F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cut-back asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C₄H₁₀). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C₄H₈), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 degrees F to 750 degrees F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. See *Motor Gasoline (Finished)*.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 degrees F to 1000 degrees F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See *Butane*.

Isohexane. A saturated branch-chain hydrocarbon, (C₆H₁₄). It is a colorless liquid that boils at a temperature of 156.2 degrees F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C₄), an alkylation process feedstock, and normal pentane and hexane into

isopentane, (C₅), and isohexane, (C₆), high-octane gasoline components.

Isopentane. See *Natural Gasoline and Isopentane*.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10-percent recovery point, a final boiling point of 572 degrees F, and a minimum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 degrees F at the 10-percent recovery point and a final maximum boiling point of 572 degrees F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 degrees F to 650 degrees F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants"

includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. A product of hydrotreating, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a range in distillation temperatures from 122 to 158 degrees F at the 10-percent recovery point and from 365 to 374 degrees F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.

Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformat). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Naphtha-type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 degrees F at the 20-percent recovery point and 470 degrees F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemi-

cals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F" and "Other oils over 400 degrees F."

Naphtha-Less Than 400 Degrees F. A naphtha with a boiling range of less than 400 degrees F that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. Oils with a boiling range of over 400 degrees F that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 degrees F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank and is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per barrel (42 U.S. gallons).

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C₆H₅CH₃), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas, kerosene, light and heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 degrees F (D1321)-60 maximum. Viscosity at 210 degrees F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscos-

ity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 degrees F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Working Storage Capacity. The volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C₆H₄Y(CH₃)₂), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

Choosing the **RIGHT** Data Products?
Make Sure! With the ...



CENSUS CATALOG AND GUIDE: 1988

Helps you select from all the products

Every Census Bureau product issued since 1980 -

Reports Microfiche Computer tapes
Maps Floppy disks Online access

Features facts about each product

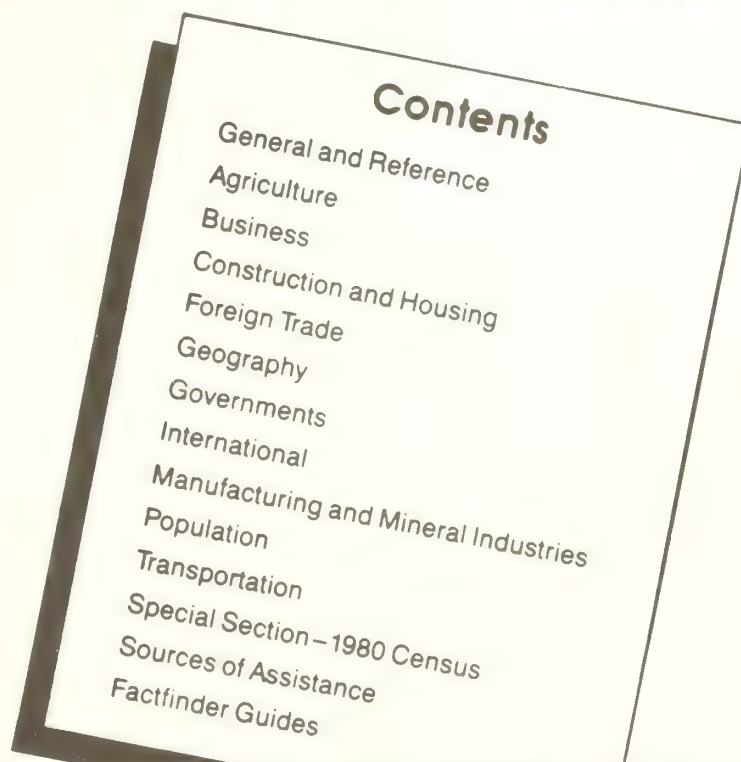
Topics Areas Dates Prices

Makes finding the right product easy

Extensive overview chapter Detailed index
Guides to each statistical subject

Identifies sources of assistance

1,300 State Data Center organizations
200 Census Bureau specialists
1,500 depository libraries
Other Federal statistical agencies
4 other directory lists



***6458**

Superintendent of Documents Publication Order Form

Yes, please send me: _____ copies of **Census Catalog
and Guide: 1988** at \$19, S/N 003-024-06785-4

Charge your order.
It's easy!



1. The total cost of my order is \$_____ (International customers please add an additional 25%.) All prices include regular domestic postage and handling and are good through 1/89. After this date, please call Order and Information Desk at 202-783-3238 to verify prices.

Please Type or Print

2. _____
(Company or personal name)

(Additional address/attention line)

(Street address)

(City, State, ZIP Code)

(Daytime phone including area code)

3. Please choose method of payment:

- ☐ Check payable to the Superintendent of Documents
☐ GPO Deposit Account _____ - ☐
☐ VISA or MasterCard Account

Thank you for your order!

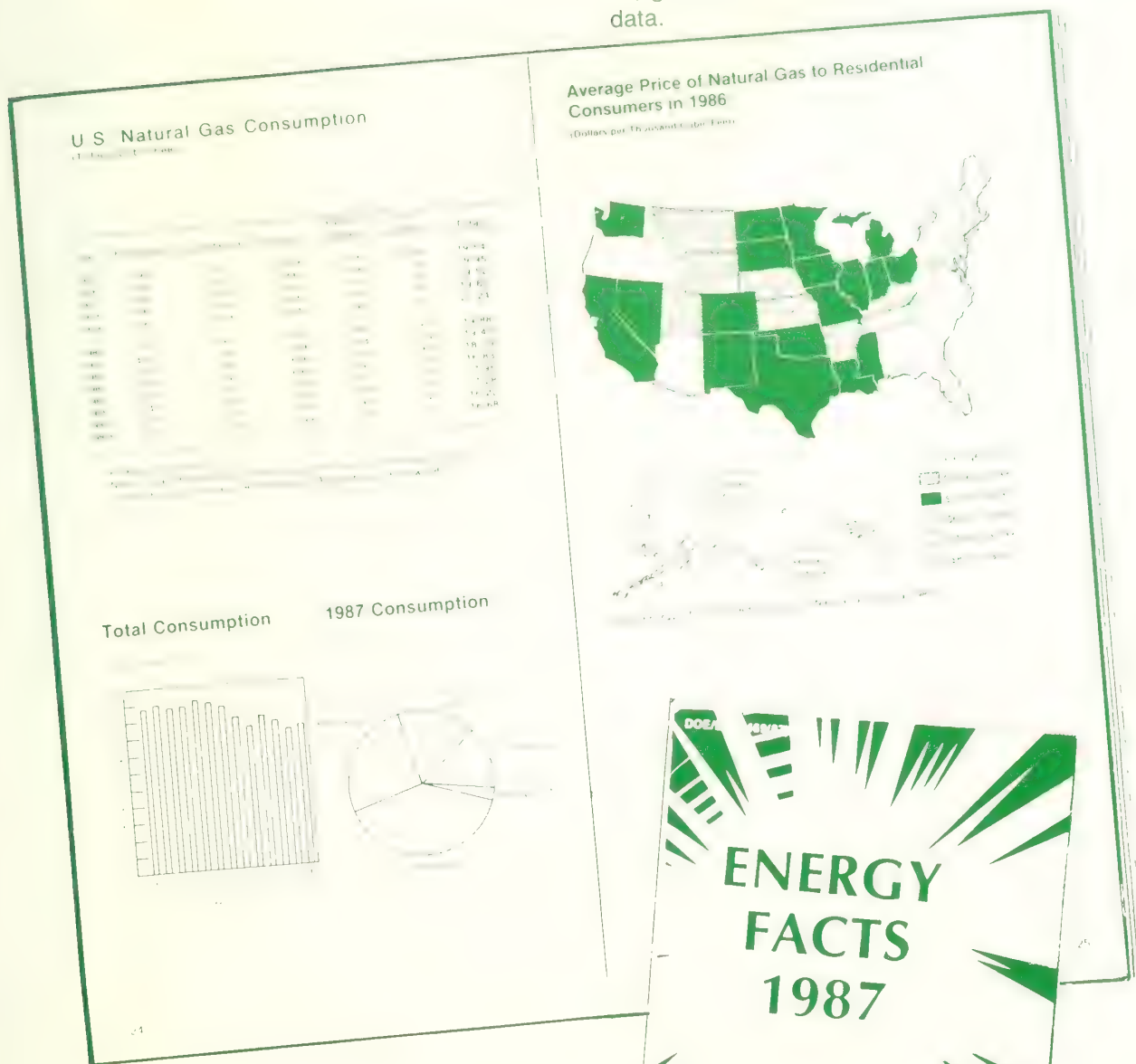
(Credit card expiration date)

(Signature)

4. **Mail To:** Superintendent of Documents, Government Printing Office, Washington, D.C. 20402-9325
(To charge by phone, call 202-783-3238.)

Get the facts!

A quick reference to U.S. and international oil, gas, coal, electricity, and nuclear energy data.

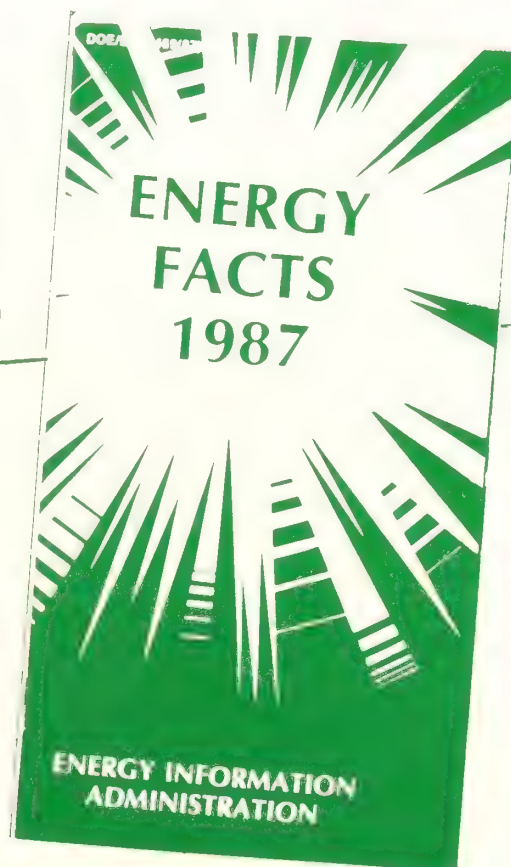


Available for \$2.00 from:

Energy Information Administration
National Energy Information Center, EI-231
Washington, DC 20585

(202) 586-8800

Make checks payable to:
U.S. Government Printing Office



U.S. Department of Energy
Forrestal Building, EI-231
Washington, DC 20585

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300



APPLICATION TO MAIL
AT SECOND-CLASS
RATES PENDING

2



UNIVERSITY OF ILLINOIS-URBANA



3 0112 075645751